Fiber Products

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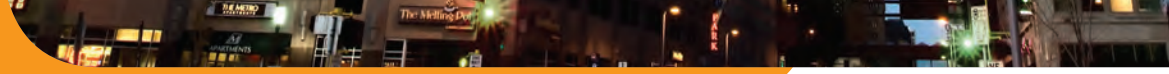
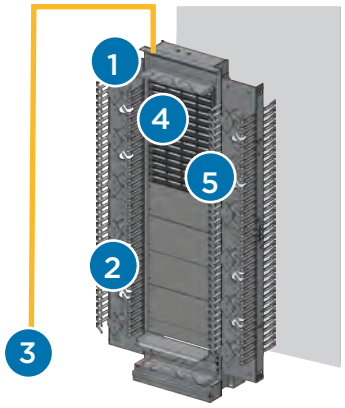


Fiber Products

For decades, TE has been a leading global fiber infrastructure provider. TE fiber connectivity solutions assure smooth integration of new equipment for all networks, as well as long-term reliability and flexibility that are so critical for your business.

Optical fiber is the backbone of the world's global information infrastructure — the conduit enabling society's ever-increasing reliance on high-speed, media-rich communications. TE is a pioneer in optical communications technologies, making optical fiber more reliable, better performing, easier and more cost effective to install. With over seven decades of research, development and real-world deployment experience with our legacy brands including AMP, Raychem, ADC and Bell Laboratories, fiber is in our DNA. TE's innovative fiber infrastructure solutions can help provide peak performance with solution-specific density, modularity and functionality. Due to the demands of today's internet and mobile network boom, the amount of data transmitted at the enterprise business level is rapidly climbing as networks need to support more devices and advanced applications than ever before. Fiber counts are on the rise and TE solutions help you build a migration path to get from 10GbE to 40 and 100GbE in a simple and cost-effective manner. TE's fiber product line can help you achieve a higher level of network understanding, manageability and security.



Fiber Optic OM2 Solution

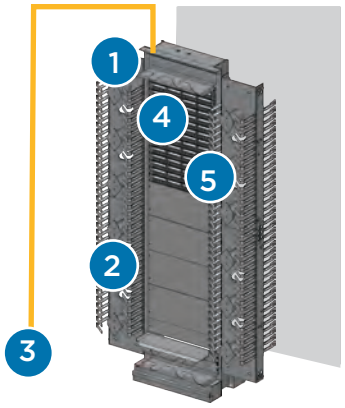
19-Inch Rack 1		Cable Management 2			
2 post, 3″ deep	1933559-1	**Horizontal 2RU panel**	Single sided	1933532-1	
4 post adjustable	1933570-1		Double sided	1933533-1	
		Double-sided vertical manager	6″	1933534-1	
			6″ Combination	1933540-1	

	3 Indoor Cable				
	Interconnect		**Distribution**		**Armored**
	Riser	**Plenum**	**Riser**	**Plenum**	**Plenum**
Dual	1-1553416-2	1-1553417-2			
Quad	1-1553418-2	1-1553419-2			
6-Fiber			1-1553307-2	1-1553308-2	2-1777121-7
12-Fiber			1-1553311-2	1-1553312-2	2-1777117-7
24-Fiber			1-1553315-2	1-1553316-2	1-1553420-2

	3 Indoor/Outdoor Cable		3 Outdoor Cable		
	Riser	**Plenum**	**All Dielectric**	**Armored**	
6-Fiber	6-1553342-2	6-1553343-2	6-1553387-2	6-1553397-2	
12-Fiber	6-1553346-2	6-1553347-2	6-1553389-2	6-1553399-2	
24-Fiber	6-1553348-2	6-1553349-2	6-1553390-2	6-1553400-2	

Patch Panels 4					
TFP	1RU	TFP-1TT00-000B	**RMG**	1RU	RMG-1000-000B
	2RU	TFP-2TT00-000B		2RU	RMG-2000-000B
	5RU	TFP-5TT00-000B		4RU	RMG-4000-000B
TFP Adapters	6 SC Duplex	TFP-12APLC3 and TFP-12APRC3	**RMG Adapters**	6 SC Duplex	RMG-12ADPC3
	12 LC Duplex	TFP-24APLQ1 and TFP-24APRQ1		12 LC Duplex	RMG-24ADPQ3

Patch Cords 5				
	1 m	**2 m**	**3 m**	**5 m**
SC/SC Duplex	PAT-SCSC-R20C001M	PAT-SCSC-R20C002M	PAT-SCSC-R20C003M	PAT-SCSC-R20C005M
SC/LC Duplex	PAT-LCSC-R20C001M	PAT-LCSC-R20C002M	PAT-LCSC-R20C003M	PAT-LCSC-R20C005M
LC/LC Duplex	PAT-LCLC-R20C001M	PAT-LCLC-R20C002M	PAT-LCLC-R20C003M	PAT-LCLC-R20C005M



Fiber Optic OM3 Solution

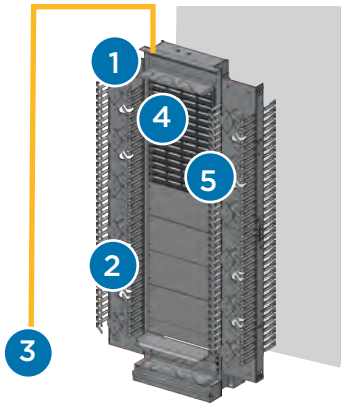
19-Inch Rack 1		Cable Management 2		
2 post, 3″ deep	1933559-1	**Horizontal 2RU panel**	Single sided	1933532-1
4 post adjustable	1933570-1		Double sided	1933533-1
		Double-sided vertical manager	6″	1933534-1
			6″ Combination	1933540-1

3 Indoor Cable					
	Interconnect		**Distribution**		**Armored**
	Riser	**Plenum**	**Riser**	**Plenum**	**Plenum**
Dual	3-1553416-9	3-1553417-9			
Quad	3-1553418-9	3-1553419-9			
6-Fiber			3-1553307-9	3-1553308-9	3-1777121-7
12-Fiber			3-1553311-9	3-1553312-9	3-1777117-7
24-Fiber			3-1553315-9	3-1553316-9	3-1553420-9

3 Indoor/Outdoor Cable			3 Outdoor Cable	
	Riser	**Plenum**	**All Dielectric**	**Armored**
6-Fiber	6-1553342-4	6-1553343-4	6-1553387-4	6-1553397-4
12-Fiber	6-1553346-4	6-1553347-4	6-1553389-4	6-1553399-4
24-Fiber	6-1553348-4	6-1553349-4	6-1553390-4	6-1553400-4

Patch Panels 4					
TFP	1RU	TFP-1TT00-000B	**RMG**	1RU	RMG-1000-000B
	2RU	TFP-2TT00-000B		2RU	RMG-2000-000B
	5RU	TFP-5TT00-000B		4RU	RMG-4000-000B
TFP Adapters	6 SC Duplex	TFP-12APLC4 and TFP-12APRC4	**RMG Adapters**	6 SC Duplex	RMG-12ADPC4
	12 LC Duplex	TFP-24APLQ2 and TFP-24APRQ2		12 LC Duplex	RMG-24ADPQ4

Patch Cords 5				
	1 m	**2 m**	**3 m**	**5 m**
SC/SC Duplex	PAT-SCSC-R30C001M	PAT-SCSC-R30C002M	PAT-SCSC-R30C003M	PAT-SCSC-R30C005M
SC/LC Duplex	PAT-LCSC-R30C001M	PAT-LCSC-R30C002M	PAT-LCSC-R30C003M	PAT-LCSC-R30C005M
LC/LC Duplex	PAT-LCLC-R30C001M	PAT-LCLC-R30C002M	PAT-LCLC-R30C003M	PAT-LCLC-R30C005M



Fiber Optic OM4 Solution

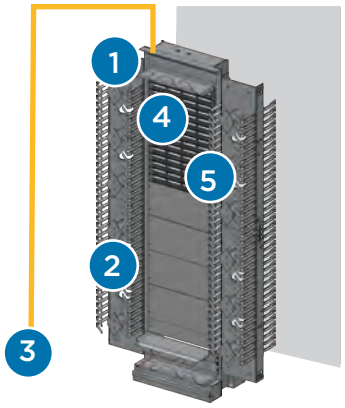
19-Inch Rack 1		Cable Management 2		
2 post, 3″ deep	1933559-1	**Horizontal 2RU panel**	Single sided	1933532-1
4 post adjustable	1933570-1		Double sided	1933533-1
		Double-sided vertical manager	6″	1933534-1
			6″ Combination	1933540-1

	3 Indoor Cable				
	Interconnect		**Distribution**		**Armored**
	Riser	**Plenum**	**Riser**	**Plenum**	**Plenum**
Dual	4-1553416-9	4-1553417-9			
Quad	4-1553418-9	4-1553419-9			
6-Fiber			4-1553307-9	4-1553308-9	7-1777121-7
12-Fiber			4-1553311-9	4-1553312-9	7-1777117-7
24-Fiber			4-1553315-9	4-1553316-9	4-1553420-9

	3 Indoor/Outdoor Cable		3 Outdoor Cable	
	Riser	**Plenum**	**All Dielectric**	**Armored**
6-Fiber	6-1553342-5	6-1553343-5	6-1553387-5	6-1553397-5
12-Fiber	6-1553346-5	6-1553347-5	6-1553389-5	6-1553399-5
24-Fiber	6-1553348-5	6-1553349-5	6-1553390-5	6-1553400-5

Patch Panels 4					
TFP	1RU	TFP-1TT00-000B	**RMG**	1RU	RMG-1000-000B
	2RU	TFP-2TT00-000B		2RU	RMG-2000-000B
	5RU	TFP-5TT00-000B		4RU	RMG-4000-000B
TFP Adapters	6 SC Duplex	TFP-12APLC4 and TFP-12APRC4	**RMG Adapters**	6 SC Duplex	RMG-12ADPC4
	12 LC Duplex	TFP-24APLQ2 and TFP-24APRQ2		12 LC Duplex	RMG-24ADPQ4

	Patch Cords 5			
	1 m	**2 m**	**3 m**	**5 m**
SC/LC Duplex	PAT-LCSC-R40C001M	PAT-LCSC-R40C002M	PAT-LCSC-R40C003M	PAT-LCSC-R40C005M
LC/LC Duplex	PAT-LCLC-R40C001M	PAT-LCLC-R40C002M	PAT-LCLC-R40C003M	PAT-LCLC-R40C005M



Fiber Optic Singlemode Solution

19-Inch Rack (1)		Cable Management (2)			
2 post, 3″ deep	1933559-1	**Horizontal 2RU panel**	Single-sided	1933532-1	
4 post adjustable	1933570-1		Double-sided	1933533-1	
		Double-sided vertical manager	6″	1933534-1	
			6″ Combination	1933540-1	

	3 Indoor Cable				
	Interconnect		**Distribution**		**Armored**
	Riser	**Plenum**	**Riser**	**Plenum**	**Plenum**
Dual	7-1553416-3	7-1553417-3			
Quad	7-1553418-3	7-1553419-3			
6-Fiber			7-1553307-3	7-1553308-3	4-1777121-7
12-Fiber			7-1553311-3	7-1553312-3	4-1777117-7
24-Fiber			7-1553315-3	7-1553316-3	7-1553420-3

	3 Indoor/Outdoor Cable		3 Outdoor Cable		
	Riser	**Plenum**	**All Dielectric**	**Armored**	
6-Fiber	6-1553342-3	6-1553343-3	6-1553387-3	6-1553397-3	
12-Fiber	6-1553346-3	6-1553347-3	6-1553389-3	6-1553399-3	
24-Fiber	6-1553348-3	6-1553349-3	6-1553390-3	6-1553400-3	

Patch Panels (4)					
TFP	1RU	TFP-1TT00-000B	**RMG**	1RU	RMG-1000-000B
	2RU	TFP-2TT00-000B		2RU	RMG-2000-000B
	5RU	TFP-5TT00-000B		4RU	RMG-4000-000B
TFP Adapters	6 SC Duplex	TFP-12APLC8 and TFP-12APRC8	**RMG Adapters**	6 SC Duplex	RMG-12ADPC8
	12 LC Duplex	TFP-24APLQ5 and TFP-24APRQ5		12 LC Duplex	RMG-24ADPQ8

Patch Cords (5)				
	1 m	**2 m**	**3 m**	**5 m**
SC/LC Duplex	PAT-LCSC-RS0C001M	PAT-LCSC-RS0C002M	PAT-LCSC-RS0C003M	PAT-LCSC-RS0C005M
LC/LC Duplex	PAT-LCLC-RS0C001M	PAT-LCLC-RS0C002M	PAT-LCLC-RS0C003M	PAT-LCLC-RS0C005M

Fiber Trunk Solutions

24-FIBER MPOPTIMATE SYSTEM FOR 10/40/100 MIGRATION

Bandwidth and storage demand is expanding at a breathtaking rate. The environment is rapidly evolving. The impact on data center design and management is profound. Networks will migrate from 10 to 40 to 100 Gigabit/second Ethernet speeds dynamically, and data center managers and designers need to be able to manage this migration to maximize network efficiency and responsiveness while minimizing cost.

TE's 24-Fiber MPOptimate system can take you from 10 to 40 and even 100GbE and beyond. Consisting of the 24-fiber trunk cables from the back of the fiber panels to the equipment distribution area, this system can help you migrate your applications, increase bandwidth and flexibility as well as capture much needed space in the rack.

TE's data center fiber trunking and interconnect system provides a simple yet robust migration pathway with the following advantages:

- A single trunking format that can be replicated and upgraded simply and flexibly
- Unified solutions for 10, 40 and 100 GbE applications
- Pre-engineered paths and polarity
- Higher fiber utilization versus 12 fiber systems
- Fewer trunks, connections and components
- Standardized practices for design, installation, documentation and troubleshooting
- Component and trunk re-use
- Minimized waste of space, time and money

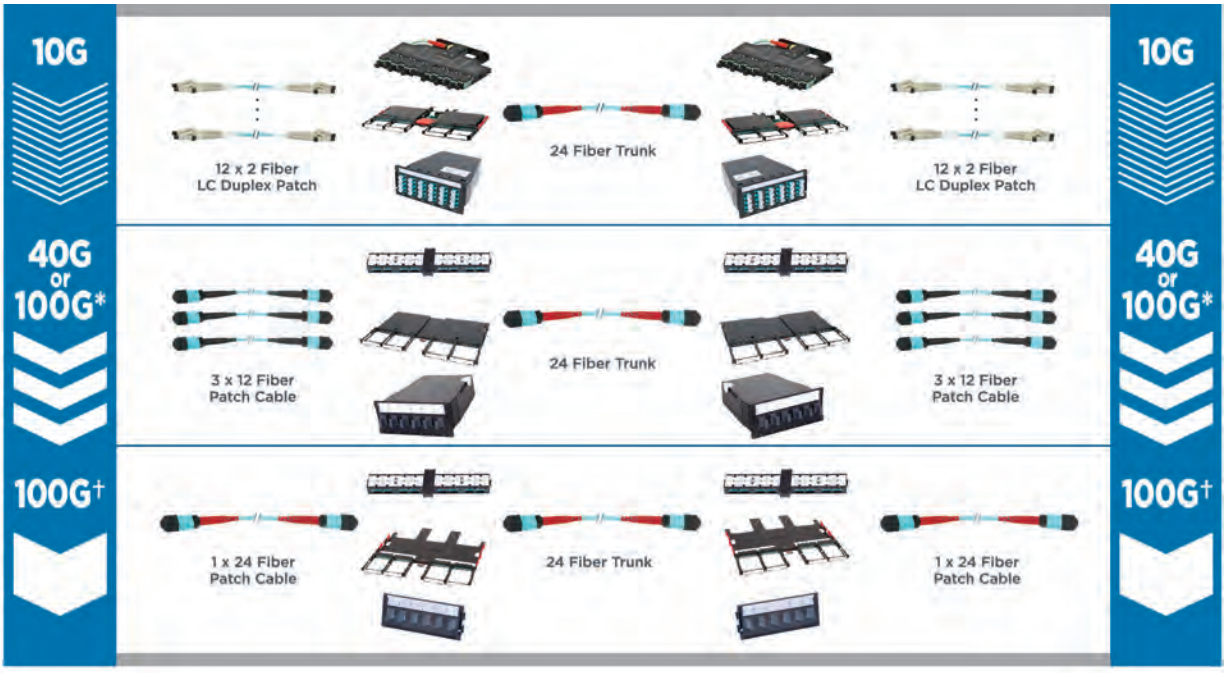
Universal Connectivity Platform

Q3000

RMG

High Density Equipment Panel

For more information, visit **www.te.com/DataCenterMigration.**

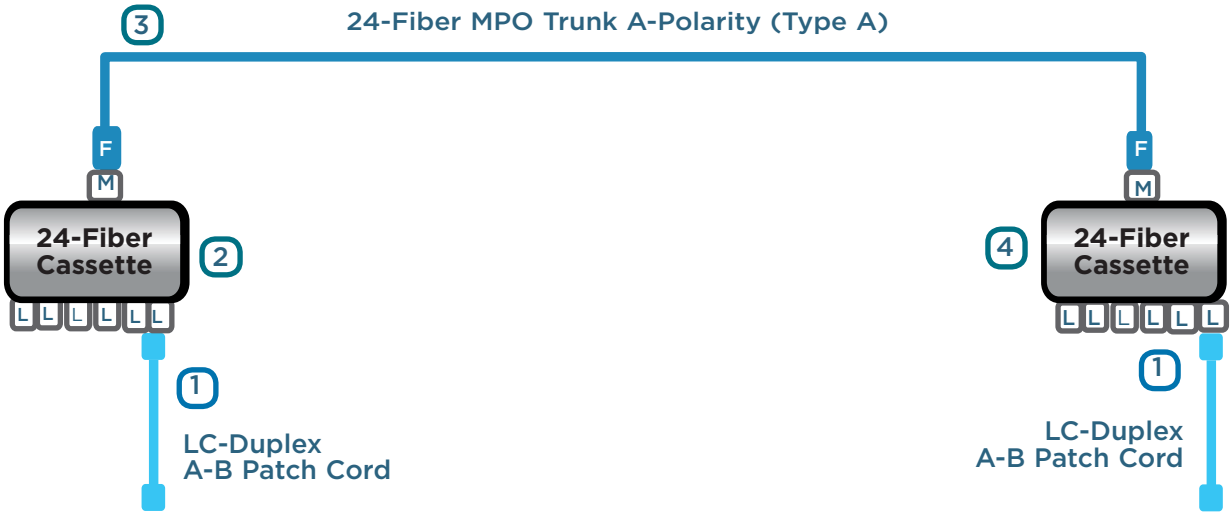


*100G implemented as 4x25G
†100G implemented as 10x10G

Universal Connectivity Platform (UCP) 24-Fiber 10 Gigabit Interconnect

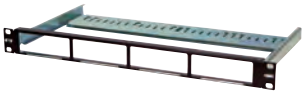
The 10 Gigabit Interconnect Solution, like all of the planned migration designs, employs a 24-fiber optical trunk with a single MPO-type connector at each end. A trunk interfaces with the rear of a 24-fiber UCP cassette that breaks out the trunk fibers into twelve duplex LC connections at the front, supporting 24 fibers per cassette. This cassette resides in a time-proven UCP panel which provides cable management and protection for both the MPOs at the rear and LC cords at the front. UCP enclosures are stackable and support up to 48 duplex LCs (96 fibers) per rack unit (RU). They can be populated all at once, or added to by upgrading one cassette at a time in the future. The UCP enclosure also supports high density 10 Gigabit modules, as well as 40 and 100 GbE versions, allowing an upgrade path by changing the cassette at the front and using existing and additional 24-fiber trunks at the rear.

Example of 10/40/100 GbE 24-Fiber Design



LC-MPO Cassette

24-Fiber Trunk



UCP 1 RU Panel

UCP 1 RU Drawer

DESIGN GUIDES FOR 10/40/100 GbE MIGRATION

For in-depth 10/40/100 design guides, see the following literature on www.te.com/DataCenterMigration

- Universal Connectivity Platform Design Guide literature #317291AE
- Q3000 Design Guide literature #315924AE
- RMG Design Guide literature #315990AE
- High Density Equipment Panel Design Guide literature #318339AE

Fiber Trunk Solutions

TE Connectivity's plug-and-play MPO trunk assemblies are round 12-fiber optical trunk cables pre-terminated with a high-density MPO connector on both ends. They can be used in conjunction with any of the other plug-and-play connectivity products to rapidly deploy fiber into a data center or Local Area Network (LAN).
The microcable assemblies can simply be plugged into any plug-and-play cassette or fiber enclosure which eliminates the need for on-site fiber termination.

MPO Cable Assemblies

FEATURES

- Available in OM1, OM2, OM3, OM4 and singlemode glass types
- Compatible with FiberGuide optical raceway system to add increased protection and manageability
- Pulling socks or stealth pulling eye protect MPO connectors during installation
- Factory terminated and tested
- 12 and 24 fiber trunks available on either interconnect-rated or backbone-rated cable styles

ORDERING INFORMATION

MPO Trunk Assemblies	Part Number
OM4 MPO Trunk Assemblies	
OM4 MPO-MPO, 12-fiber 3 mm interconnect, plenum (OFNP) rated	MPA-NCNCJ40xxxF-NN
OM4 MPO-MPO, 24-fiber backbone (2x12) with 3 mm interconnect subunits, OFNP/OFNP	MPA-NCNCD40xxxF-yy
OM3 MPO Trunk Assemblies	
OM3 MPO-MPO, 12-fiber 3 mm interconnect, plenum (OFNP) rated	MPA-NCNCJ30xxxF-NN
OM3 MPO-MPO, 24-fiber backbone (2 x 12) with 3 mm interconnect subunits, OFNR/OFNP	MPA-NCNCD30xxxF-yy
OM2 MPO Trunk Assemblies	
OM2 MPO-MPO, 12-fiber 3 mm interconnect, plenum (OFNP) rated	MPA-NCNCJ20xxxF-NN
OM2 MPO-MPO, 24 (2 x 12) with 3 mm interconnect subunits, OFNR/OFNP	MPA-NCNCD20xxxF-yy
OM1 MPO Trunk Assemblies	
OM1 MPO-MPO, 12-fiber 3 mm interconnect, plenum (OFNP) rated	MPA-NCNCJ10xxxF-NN
OM1 MPO-MPO, 24-fiber backbone (2 x 12) 3 mm interconnect subunits, OFNR/OFNP	MPA-NCNCD10xxxF-yy
Singlemode Trunk Assemblies	
OS2 Singlemode, 12-fiber, 12-fiber 3 mm interconnect, plenum (OFNP) rated	MPA-NCNCJ50xxxF-NN
OS2 Singlemode, 24-fiber, 24 (2 x 12) Fiber backbone with 3 mm interconnect subunits, plenum (OFNP) rated	MPA-NCNCD50xxxF-yy

Note: xxx denotes length in feet of overall trunk, 001=1 foot, 010=10 feet, 100=100 feet
Note: yy denotes breakout definition for each end
SS=Standard, AA=TFP to TFP, AB=TFP to ODF, BB=ODF to ODF, FF=RMG to RMG, NN=No breakout for 12-fiber interconnect cable

TE's High Fiber Count Plug-and-Play Trunks

TE's high fiber count plug-and-play trunks provide the backbone cabling for TE's Plug-and-Play system. These high count trunk cables come pre-terminated with a high-density MPO connectors on both ends and provide an easy and efficient way to pull large numbers of fibers at one time to help in the rapid deployment of the Plug-and-Play system either in the data center or Local Area Network (LAN). Each trunk has custom breakouts designed to work with the TE Plug-and-Play connectivity. TE's high fiber count trunks can simply be plugged into any plug-and-play cassette in the optical distribution frame or fiber enclosure which eliminates the need for on-site fiber termination and preparation.

FEATURES

- Construction of rugged loose-tube fiber cable
- Ship with a pulling sock on one end to aid with installation
- Cable assemblies contain OFNP flame rated cable
- Breakouts specifically designed to work with TE's Plug-and-Play connectivity

ORDERING INFORMATION

OM4 High Fiber Count Trunks	Part Number
24-fiber, MPO-MPO (no pins), OFNP rated	MPA-NCNCD40xxxF-yy
24-fiber, MPO-MPO (no pins) 3 mm dual zip, OFNP rated	MPA-NCNCZ40xxxF-yy
48-fiber, MPO-MPO (no pins) 3mm round, OFNP rated	MPA-NCNC440xxxF-yy
72-fiber, MPO-MPO (no pins) 3 mm round, OFNP rated	MPA-NCNC740xxxF-yy
96-fiber, MPO-MPO (no pins) 3 mm round, OFNP rated	MPA-NCNC940xxxF-yy
OM3 High Fiber Count Trunks	
24-fiber, MPO-MPO (no pins), OFNP rated	MPA-NCNCD30xxxF-yy
24-fiber, MPO-MPO (no pins) 3 mm dual zip, OFNP rated	MPA-NCNCZ30xxxF-yy
48-fiber, MPO-MPO (no pins) 3 mm round, OFNP rated	MPA-NCNC430xxxF-yy
72-fiber, MPO-MPO (no pins) 3 mm round, OFNP rated	MPA-NCNC730xxxF-yy
96-fiber, MPO-MPO (no pins) 3 mm round, OFNP rated	MPA-NCNC930xxxF-yy
Singlemode High Fiber Count Trunks	
24-fiber, MPO-MPO (no pins), OFNP rated	MPA-NCNCD50xxxF-yy
24-fiber, MPO-MPO (no pins) 3 mm dual zip, OFNP rated	MPA-NCNCZ50xxxF-yy
48-fiber, MPO-MPO (no pins) 3 mm round, OFNP rated	MPA-NCNC450xxxF-yy
72-fiber, MPO-MPO (no pins) 3 mm round, OFNP rated	MPA-NCNC750xxxF-yy
96-fiber, MPO-MPO (no pins) 3 mm round, OFNP rated	MPA-NCNC950xxxF-yy

Note: xxx denotes length in feet of overall trunk, 001=1 foot, 010=10 feet, 100=100 feet
Note: yy denotes breakout definition for each end
SS=Standard, AA=TFP to TFP, AB=TFP to ODF, BB=ODF to ODF, FF=RMG to RMG

TE's High Fiber Count Plug-and-Play Array Cables

TE's 12-fiber plug-and-play array cables provide a convenient and efficient method to connect active equipment into the network. These 12-fiber round 3 mm cables contain a pre-terminated high-density MPO pinned connector on one end and either LC or SC connectors on the other. TE's 12-fiber plug-and-play array cable assemblies can simply be mated to any non-pinned MPO assembly in the optical distribution frame or fiber enclosure or plugged into any MPO transceiver which eliminates the need for on-site fiber termination and preparation.

FEATURES

- Round design with outer diameter of 3 mm eliminates preferential bend issues which results in increased density and greater manageability
- Each LC or SC leg is clearly labeled and identified
- Custom lengths available upon request
- Standard breakout length is 18 inches, which is optimum to connect to active equipment
- MPO pinned array cable assemblies mate to any non-pinned MPO assembly

ORDERING INFORMATION

OM4 High Fiber Count Trunks	Part Number
MPO pinned - LC; 18" breakout; 3 m length	MPA-PCLCJ40003M-NC
MPO pinned - LC; 18" breakout; 4 m length	MPA-PCLCJ40004M-NC
MPO pinned - LC; 18" breakout; 5 m length	MPA-PCLCJ40005M-NC
MPO pinned - SC; 18" breakout; 3 m length	MPA-PCSCJ40003M-NC
MPO pinned - SC; 18" breakout; 4 m length	MPA-PCSCJ40004M-NC
MPO pinned - SC; 18" breakout; 5 m length	MPA-PCSCJ40005M-NC
OM3 High Fiber Count Trunks	
MPO pinned - LC; 18" breakout; 3 m length	MPA-PCLCJ30003M-NC
MPO pinned - LC; 18" breakout; 4 m length	MPA-PCLCJ30004M-NC
MPO pinned - LC; 18" breakout; 5 m length	MPA-PCLCJ30005M-NC
MPO pinned - SC; 18" breakout; 3 m length	MPA-PCSCJ30003M-NC
MPO pinned - SC; 18" breakout; 4 m length	MPA-PCSCJ30004M-NC
MPO pinned - SC; 18" breakout; 5 m length	MPA-PCSCJ30005M-NC
Singlemode High Fiber Count Trunks	
MPO pinned - LC/UPC; 18" breakout; 3 m length	MPA-PCLCJ50003M-NC
MPO pinned - LC/UPC; 18" breakout; 4 m length	MPA-PCLCJ50004M-NC
MPO pinned - LC/UPC; 18" breakout; 5 m length	MPA-PCLCJ50005M-NC
MPO pinned - SC/UPC; 18" breakout; 3 m length	MPA-PCSCJ50003M-NC
MPO pinned - SC/UPC; 18" breakout; 4 m length	MPA-PCSCJ50004M-NC
MPO pinned - SC/UPC; 18" breakout; 5 m length	MPA-PCSCJ50005M-NC

FIBER

Fiber Trunk Configurator

Part Number

MP__ - __ __ __ __ __ __ __ __ __ __ __ - __ __

Performance/Polarity

C	Standard Performance Polarity C
A	Standard Performance Polarity A
B	Standard Performance Polarity B
T	OPTIMATE Polarity A
E	OPTIMATE Polarity C
F	OPTIMATE Polarity B

Connector A Type

N	12-Fiber MPO w/o pins
P	12-Fiber MPO with pins
C	12-Fiber MPO Secure w/o pins
E	12-Fiber MPO Secure with pins
1	24 Fiber MPO with pins
2	24 Fiber MPO w/o pins
A	24 Fiber MPO Secure with pins
H	24 Fiber MPO Secure w/o pins

Connector A Color

C	Non-secure
0	Red
B	Blue
G	Green
Y	Yellow
N	Orange

W	Brown
S	Slate
V	Violet
P	Rose
A	Aqua

Connector B Type

N	12-Fiber MPO w/o pins
P	12-Fiber MPO w/pins
C	12-Fiber MPO Secure w/o pins
E	12-Fiber MPO Secure w/pins
1	24 Fiber MPO w/pins
2	24 Fiber MPO w/o pins
A	24 Fiber MPO Secure w/pins
H	24 Fiber MPO Secure w/o pins
L	LC Duplex
S	SC Duplex
T	ST Dual
F	FC Dual
M	MT-RJ plug w/o pins
8	LC Duplex Secure
9	MT-RJ plug Secure w/o pins
7	LC/APC Duplex
6	SC/APC Duplex
W	MT-RJ plug w/pins
0	Stub/pigtail

Connector B Color

C	Non-secure
0	Red
B	Blue
G	Green
Y	Yellow
N	Orange

W	Brown
S	Slate
V	Violet
P	Rose
A	Aqua

Breakout Length (L2 & L3)

	L2	L3
A	TFP	30.50″
B	NGF	13.75″
C	Customer length	18″
F	RMG	25″
N	No breakout	NA
S	Standard	36″
U	Customer length	79″
XX	Custom	10″-99″

Unit of Measure

F	Feet
M	Meters

Assembly Length

001	Shortest possible length
999	Longest possible length

Cable Jacket Color

0	Standard

Cable Type

Use charts below

OM1

J1	12-Fiber 3 mm interconnect, OFNP
11	12-Fiber backbone, 1x12F, 3 mm interconnect Subunit, OFN
D1	24-Fiber backbone, 2x12F, 3 mm interconnect subunits, OFNP
Z1	24-Fiber 3.0 mm interconnect-rated zipcable, OFNP

OM2

J2	12-Fiber 3 mm interconnect, OFNP
12	12-Fiber backbone, 1x12F, 3 mm interconnect Subunit, OFNP
D2	24-Fiber backbone, 2x12F, 3 mm interconnect subunits, OFNP
Z2	24-Fiber 3.0 mm interconnect-rated zipcable, OFNP

OM3

J3	12-Fiber 3 mm interconnect, OFNP
13	12-Fiber backbone, 1x12F, 3 mm interconnect Subunit, OFNP
D3	D3 24-Fiber backbone, 2x12F, 3 mm interconnect subunits, OFNP
M3	24-Fiber backbone, 1x24F, 3.8 mm interconnect subunits, OFNP
Z3	24-Fiber 3.0 mm interconnect-rated zipcable, OFNP

OM4

J4	12-Fiber 3mm interconnect, OFNP
14	12-Fiber backbone, 1x12F, 3 mm interconnect Subunit, OFNP
D4	24 Fiber backbone, 2x12F, 3 mm interconnect subunits, OFNP
M4	24 Fiber backbone, 1x24F, 3.8 mm interconnect subunits, OFNP
Z4	24-Fiber 3.0 mm interconnect-rated zipcable, OFNP

Singlemode

J5	12-Fiber 3mm interconnect, OFNP
15	12-Fiber backbone, 1x12F, 3 mm interconnect Subunit, OFNP
D5	24-Fiber backbone, 2x12F, 3 mm interconnect subunits, OFNP
M5	24-Fiber backbone, 1x24F, 3.8 mm interconnect subunits, OFNP
Z5	24-Fiber 3.0 mm interconnect-rated zipcable, OFNP

* Higher fiber counts available upon request

Cable Assembly Configuration

Figure 1
12-fiber MPO to MPO assembly on 3 mm interconnect cable or
24 Fiber MPO to MPO assembly on 3.8 mm interconnect cable

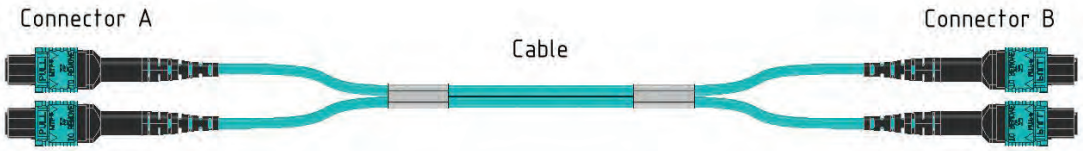


Figure 2
MPO to MPO assembly on 24 fiber 3 mm interconnect zipcord cable.

Figure 3
12-fiber MPO to MPO assembly on 12-fiber backbone cable with 1x12
fiber 3 mm interconnect subunit, or 24 fiber MPO to MPO assembly on
24 fiber backbone cable with 1x24 fiber 3.8 mm interconnect subunit.

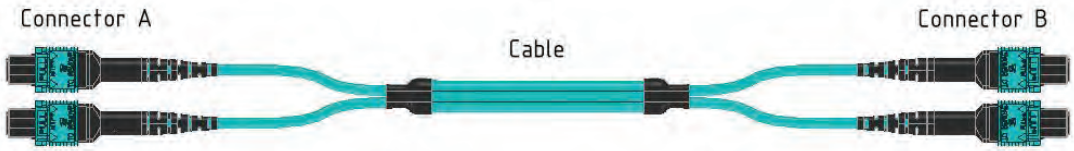


Figure 4
MPO to MPO on backbone cable with 12-fiber 3 mm
interconnect subunits. Fiber counts range from 12 to 144.

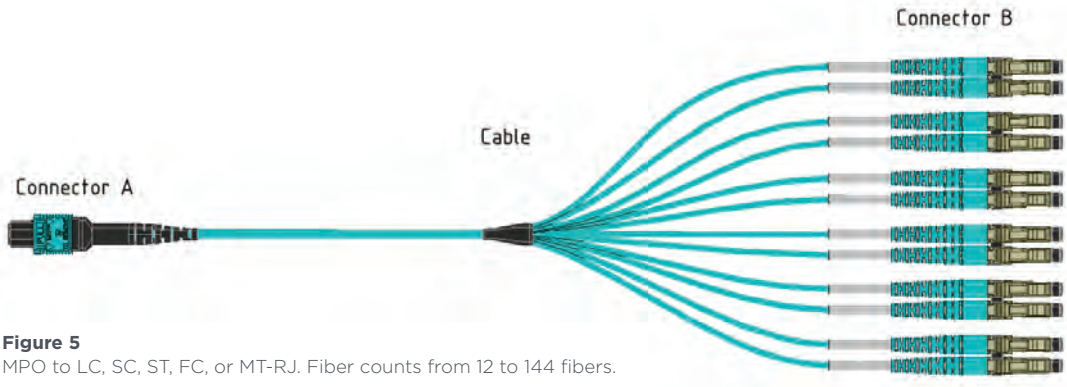
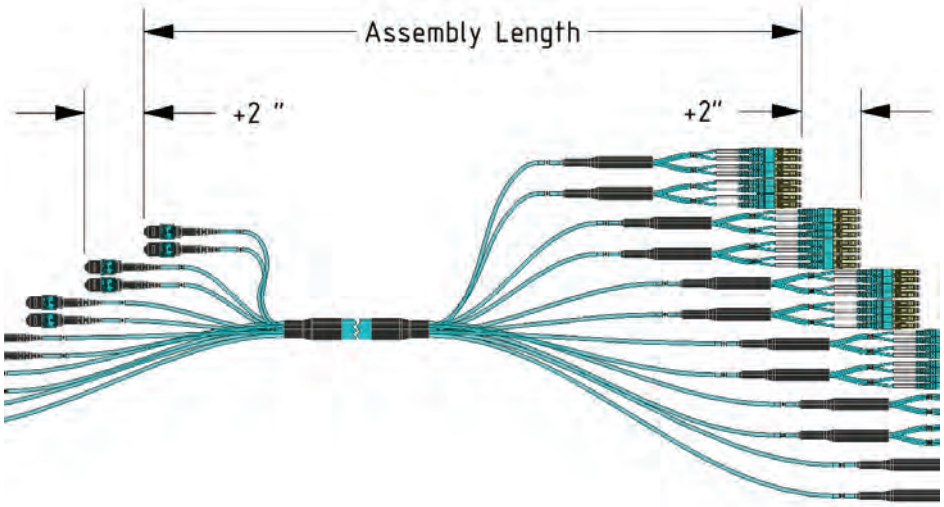


Figure 5
MPO to LC, SC, ST, FC, or MT-RJ. Fiber counts from 12 to 144 fibers.

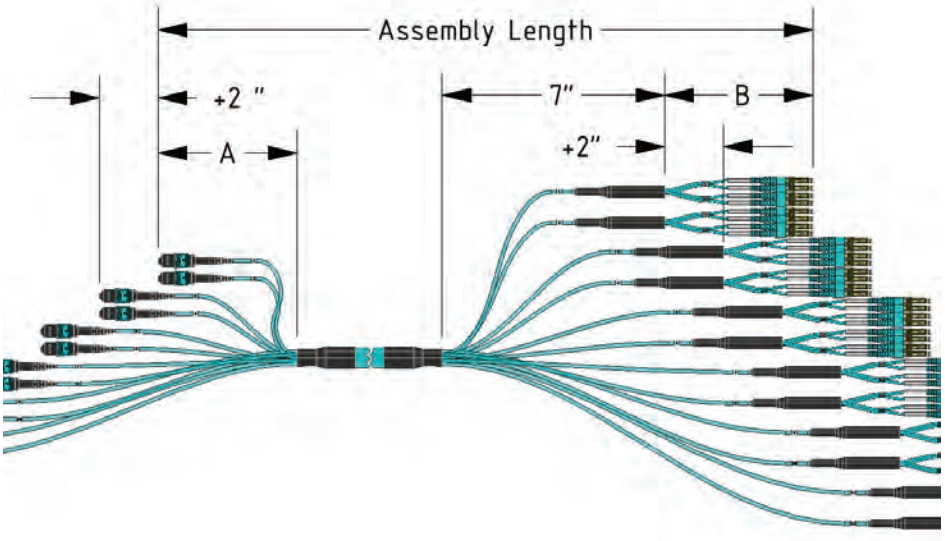
Assembly Length

Measured from tip of connector A ferrule to tip of connector B ferrule. The unit of measure is dependent on the selection in position 12. Each pair of subunits beyond the first two will be 2" longer on each end of the assembly, as shown (this allows a smaller pulling sock to be used).

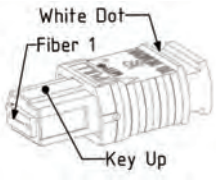
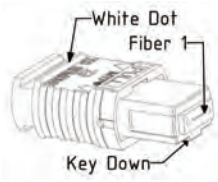
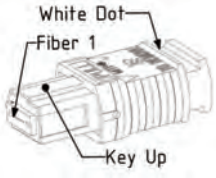
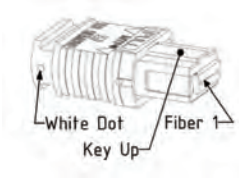
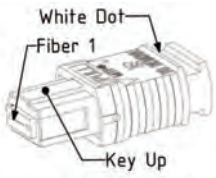
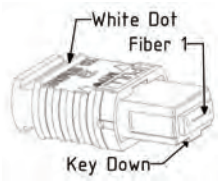


Breakout Length

Choose the breakout length for each end. An entry of BF will result in 13.75" on the left and 25" on the right. The breakout length is defined from the end of the heat shrink transition to the tip of the connector ferrule as shown. The 7" section of exposed subunit shown here will exist on assemblies with any connector other than MPOs selected for connector B, and is non-configurable. Each pair of subunits beyond the first two will be 2" longer on each end of the assembly, as shown (this allows a smaller pulling sock to be used).

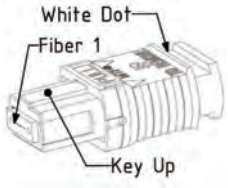
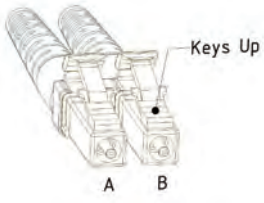
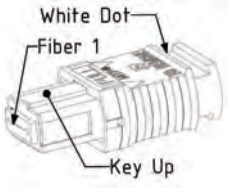
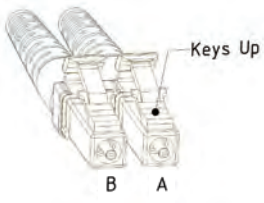


MPO to MPO Polarity for Cable Assemblies

Description		Connector A Fiber Number	Fiber Color	Connector B Fiber Number	
Polarity A (Straight Through) with Standard Performance		1	Blue	1	
		2	Orange	2	
		3	Green	3	
		4	Brown	4	
		5	Slate	5	
		6	White	6	
		7	Red	7	
		8	Black	8	
		9	Yellow	9	
		10	Violet	10	
		11	Rose	11	
		12	Aqua	12	
Polarity B (Reversed) with Standard Performance		1	Blue	12	
		2	Orange	11	
		3	Green	10	
		4	Brown	9	
		5	Slate	8	
		6	White	7	
		7	Red	6	
		8	Black	5	
		9	Yellow	4	
		10	Violet	3	
		11	Rose	2	
		12	Aqua	1	
Polarity C (Pairs Flipped) with Standard Performance		1	Blue	2	
		2	Orange	1	
		3	Green	4	
		4	Brown	3	
		5	Slate	6	
		6	White	5	
		7	Red	8	
		8	Black	7	
		9	Yellow	10	
		10	Violet	9	
		11	Rose	12	
		12	Aqua	11	

Polarity for MPO to MT-RJ, LC, SC, ST, or FC

Polarity A must be chosen when connector B is a simplex connector (FC, ST, LC/APC, or SC/APC). OPTIMATE performance can only be chosen when connector B is MPO, LC, or SC.

Description		Connector A Fiber Number	Fiber Color	Connector B Fiber Number	Connector B Pair	Connector B Duplex Position	
Polarity A (Straight Through) with Standard Performance		1	Blue	1	1	A	
		2	Orange	2		B	
		3	Green	3	2	A	
		4	Brown	4		B	
		5	Slate	5	3	A	
		6	White	6		B	
		7	Red	7	4	A	
		8	Black	8		B	
		9	Yellow	9	5	A	
		10	Violet	10		B	
		11	Rose	11	6	A	
		12	Aqua	12		B	
Polarity C (Pairs Flipped) with Standard Performance		1	Blue	2	1	B	
		2	Orange	1		A	
		3	Green	4	2	B	
		4	Brown	3		A	
		5	Slate	6	3	B	
		6	White	5		A	
		7	Red	8	4	B	
		8	Black	7		A	
		9	Yellow	10	5	B	
		10	Violet	9		A	
		11	Rose	12	6	B	
		12	Aqua	11		A	

ASSEMBLY PERFORMANCE

Singlemode MPO
OS2

	Connector	12F MPO	24F MPO
Insertion Loss (dB Maximum)	1310 nm	0.50	0.75
	1550 nm	0.50	0.75
Return Loss (dB Minimum)	1310 nm	55	55
	1550 nm	55	55

Multimode 12 and 24 Fiber MPO

	Assembly Length (meters)	12F MPO	24F MPO
Insertion Loss (dB Maximum)	850 nm	0.50	0.50
	1300 nm	0.50	0.50
Return Loss (dB Minimum)	850 nm	20	20
	1300 nm	20	20

Multimode 12-fiber MPO OPTIMATE
OM3 and OM4

	Assembly Length (meters)	12F MPO	24F MPO
Insertion Loss (dB Maximum)	850 nm	0.35	0.35
Return Loss (dB Minimum)	850 nm	28	28

Multimode LC, SC, ST, and FC
OM1, OM2, OM3, and OM4

	Assembly Length (meters)	≤20 m	>20 to ≤40
Insertion Loss (dB Maximum)	850 nm	0.35	0.35
	1300 nm	0.35	0.35
Return Loss (dB Minimum)	850 nm	20	20
	1300 nm	20	20

Singlemode

	Connector	LC, SC, ST, FC	MT-RJ	LC APC	SC APC, FC APC
Insertion Loss (dB Maximum)	1310 nm	0.30	0.50	0.20	0.30
	1550 nm	0.30	0.50	0.20	0.30
Return Loss (dB Minimum)	1310 nm	55	26	65	65
	1550 nm	55	26	65	65

Multimode LC, SC OPTIMATE
OM3, and OM4

	Assembly Length (meters)	12F MPO	24F MPO
Insertion Loss (dB Maximum)	850 nm	0.15	0.15
	1300 nm	0.15	0.15
Return Loss (dB Minimum)	850 nm	35	35
	1300 nm	35	35

Multimode MT-RJ
OM1, OM2, OM3, and OM4

	Assembly Length (meters)	12F MPO	24F MPO
Insertion Loss (dB Maximum)	850 nm	0.50	0.50
	1300 nm	0.50	0.50
Return Loss (dB Minimum)	850 nm	20	20
	1300 nm	20	20

Fiber Optic Patch Cords

As an integral part of the fiber product portfolio, TE Connectivity's fiber optic patch cords are essential to meet the needs of high-speed data networks. These patch cords can be used throughout the network in cross-connect, test or equipment areas to link optical equipment and are available in build to order lengths and components.

FEATURES

- Fiber connector types available in multimode and singlemode include LC, SC, MTRJ, ST, and FC connectors featuring ceramic ferrules
- SECURE connectors available for LC and MTRJ
- Build to order configurations for any length fiber cable assembly
- Cable assemblies available in OFNP or OFNR ratings
- All patch cords are shipped with insertion loss tests for individual cords
- Factory terminated and tested

Fiber Patch Cord Configurator

Catalog Number

PAT- _ _ _ _ - _ _ _ _ _ _ _ _ _ _

Connector A Type

L	LC
S	SC
T	ST
F	FC
M	MTRJ w/o pins*
W	MTRJ w/pins*
3	LC optimate duplex
4	SC optimate duplex
6	SC APC
7	LC APC
8	LC secure duplex
9	MT-RJ secure plug*

Connector A Color/Keying

C	Standard
B	Secure blue
N	Secure orange
G	Secure green
W	Secure brown
S	Secure slate
R	Secure red
Y	Secure yellow
V	Secure violet
P	Secure rose
A	Secure aqua

Connector B Type

0	None/pigtails
L	LC
S	SC
T	ST
F	FC
M	MTRJ w/o pins
W	MTRJ w/pins
3	LC optimate duplex
4	SC optimate duplex
5	FC APC
6	SC APC
7	LC APC
8	LC secure duplex
9	MT-RJ secure plug

Connector B Color/Keying

C	Standard
0	None/pigtails
B	Secure blue
N	Secure orange
G	Secure green
W	Secure brown
S	Secure slate
R	Secure red
Y	Secure yellow
V	Secure violet
P	Secure rose
A	Secure aqua

Polarity

BLANK	Standard A to B duplex
S	Straight A to A

Unit of Measure

F	Feet
M	Meters

Assembly Length

001	Shortest possible length
999	Longest possible length

Cable Type

A	1.6 mm zipcord****
B	1.8 mm zipcord*
C	2.0 mm zipcord
D	3.0 mm zipcord
E	900 µm buffered fiber**
F	2.0 mm simplex****

Cable Jacket Color***

0	Standard

Fiber Type

1	OM1
2	OM2
3	OM3
4	OM4
S	OS2

Cable Jacket Material

P	Plenum
R	Riser
0	900 µm buffered fiber

Fiber

Fiber Cable Assemblies

ORDERING INFORMATION

Description		Part Number
OM3 and OM4 (50/125 µm) Multimode	**OM3 and OM4 (50/125 µm) multimode LC cable assemblies**	
	OM3 2.0 mm zipcord LC-LC connectors	PAT-LCLC-P30CxxxM
	OM3 2.0 mm zipcord LC-SC connectors	PAT-LCSC-P30CxxxM
	OM3 2.0 mm zipcord LC-ST connectors	PAT-LCTC-P30CxxxM
	OM4 2.0 mm zipcord LC-LC connectors	PAT-LCLC-P40CxxxM
	OM3 and OM4 (50/125 µm) multimode MTRJ cable assemblies	
	OM3 1.8 mm zipcord LC-MTRJ connectors	PAT-LCMC-P30BxxxM
	OM3 1.8 mm zipcord SC-MTRJ connectors	PAT-SCMC-P30BxxxM
	OM3 and OM4 (50/125 µm) multimode SC cable assemblies	
	OM3 2.0 mm zipcord SC-SC connectors	PAT-SCSC-P30CxxxM
	OM4 2.0 mm zipcord SC-SC connectors	PAT-SCSC-P40CxxxM
	OM3 2.0 mm zipcord SC-ST connectors	PAT-SCTC-P30CxxxM
	OM3 and OM4 (50/125 µm) multimode ST cable assemblies	
	OM3 2.0 mm zipcord ST-ST connectors	PAT-TCTC-P30CxxxM
OM2 (50/125 µm) Multimode	**OM2 (50/125 µm) multimode LC cable assemblies**	
	OM2 2.0 mm LC-LC connectors	PAT-LCLC-P20CxxxM
	OM2 2.0 mm zipcord LC-SC connectors	PAT-LCSC-P20CxxxM
	OM2 2.0 mm zipcord LC-ST connectors	PAT-LCTC-P20CxxxM
	OM2 (50/125 µm) multimode MTRJ cable assemblies	
	OM2 1.8 mm zipcord LC-MTRJ connectors	PAT-LCMC-P20BxxxM
	OM2 1.8 mm zipcord SC-MTRJ connectors	PAT-SCMC-P20BxxxM
	OM2(50/125 µm) multimode SC cable assemblies	
	OM2 2.0 mm zipcord SC-SC connectors	PAT-SCSC-P20CxxxM
	OM2 2.0 mm zipcord SC-ST connectors	PAT-SCTC-P20CxxxM
	OM2 (50/125 µm) multimode ST cable assemblies	
	OM3 2.0 mm zipcord ST-ST connectors	PAT-TCTC-P30CxxxM
OM1 (62.5/125 µm) Multimode	**OM1 (62.5/125 µm) multimode LC cable assemblies**	
	OM1 2.0 mm zipcord LC-LC connectors	PAT-LCLC-P10CxxxM
	OM1 2.0 mm zipcord LC-SC connectors	PAT-LCSC-P10CxxxM
	OM1 2.0 mm zipcord LC-ST connectors	PAT-LCTC-P10CxxxM
	OM1 (62.5/125 µm) multimode MTRJ cable assemblies	
	OM1 1.8 mm zipcord LC-MTRJ connectors	PAT-LCMC-P10BxxxM
	OM2 1.8 mm zipcord SC-MTRJ connectors	PAT-SCMC-P10BxxxM
	OM1 (62.5/125 µm) multimode SC cable assemblies	
	OM1 2.0 mm zipcord SC-SC connectors	PAT-SCSC-P10CxxxM
	OM1 2.0 mm zipcord SC-ST connectors	PAT-SCTC-P10CxxxM
	OM1 (62.5/125 µm) multimode ST cable assemblies	
	OM1 2.0 mm zipcord ST-ST connectors	PAT-TCTC-P10CxxxM
Singlemode	**Singlemode LC cable assemblies**	
	OS2 2.0 mm zipcord LC-LC connectors	PAT-LCLC-PS0CxxxM
	OS2 2.0 mm zipcord LC-SC connectors	PAT-LCSC-PS0CxxxM
	OS2 2.0 mm zipcord LC-ST connectors	PAT-LCTC-PS0CxxxM
	Singlemode MTRJ cable assemblies	
	OS2 1.8 mm zipcord LC-MTRJ connectors	PAT-LCMC-PS0BxxxM
	OS2 1.8 mm zipcord SC-MTRJ connectors	PAT-SCMC-PS0BxxxM
	Singlemode SC cable assemblies	
	OS2 2.0 mm zipcord SC-SC connectors	PAT-SCSC-PS0CxxxM
	OS2 2.0 mm zipcord SC-ST connectors	PAT-SCTC-PS0CxxxM
	Singlemode ST cable assemblies	
	OS2 2.0 mm zipcord ST-ST connectors	PAT-TCTC-PS0CxxxM

xxx = length in meters or feet

ASSEMBLY PERFORMANCE

Multimode LC, SC, ST, and FC
(OM1, OM2, OM3, and OM4)

	Assembly Length (meters)	LC, SC, ST, and FC
Insertion Loss (dB Maximum)	850 nm	0.35
	1300 nm	
Return Loss (dB Minimum)	850 nm	20
	1300 nm	

Multimode LC, SC OPTIMATE
(OM3, and OM4)

	Assembly Length (meters)	LC, SC Optimate
Insertion Loss (dB Maximum)	850 nm	0.15
	1300 nm	
Return Loss (dB Minimum)	850 nm	35
	1300 nm	

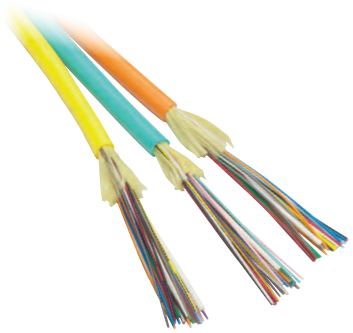
Multimode MT-RJ

	Assembly Length (meters)	Multimode MT-RJ
Insertion Loss (dB Maximum)	850 nm	0.50
	1300 nm	
Return Loss (dB Minimum)	850 nm	20
	1300 nm	

Singlemode

	Connector	LC, SC, ST, FC	MT-RJ	LC APC	SC APC, FC APC
Insertion Loss (dB Maximum)	1310 nm	0.30	0.50	0.20	0.30
	1550 nm	0.30	0.50	0.20	0.30
Return Loss (dB Minimum)	1310 nm	55	26	65	65
	1550 nm	55	26	65	65

Fiber Optic Cables and Field Terminated Connectors



TE Connectivity's fiber optic solutions offer a complete family of high-performance singlemode and multimode cables including indoor/outdoor cables, compact building cables, armored versions and patch cord pigtail cables. All cable is produced by highly automated manufacturing processes and each fiber is tested to specifications after cabling to ensure consistent quality and dependability.

All multimode fibers exceed IEEE 802.3z standards for Gigabit Ethernet performance. Fiber cable solutions also support IEEE 802.3ae standards for 300 meter 10 Gbps applications as well as 550 meter 10 Gbps applications. Advanced construction techniques simplify termination and allow faster installation. Each fiber cable offers low attenuation for optimum signal reliability while offering excellent crush, cut and abrasion resistance.

TE Optical Fiber Cables are tested and designed to be the most recent applicable industry standards for premise cabling, network and telecommunications applications, including:

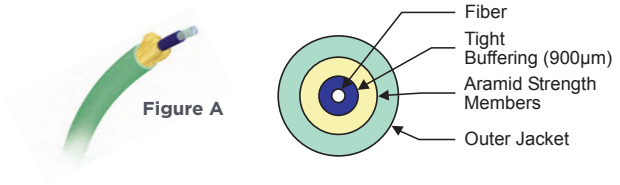
IEEE 802.3	Ethernet	Fast Ethernet	Gigabit Ethernet
10 Gigabit Ethernet	FDDI	ATM	Fibre Channel
Token Ring	ANSI/TIA-568	ISO 11801	ICEA-596
ICEA-640	ICEA-696	IEC 793-1	IEC 794-1
Telecordia GR-409-CORE	Telecordia GR-20-CORE		

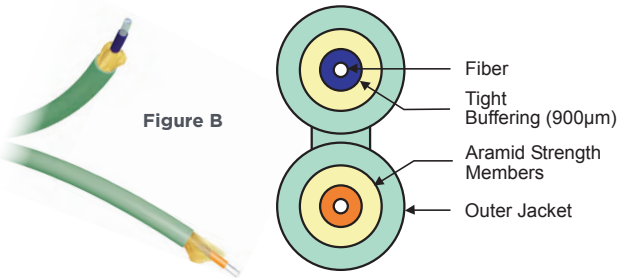
FEATURES

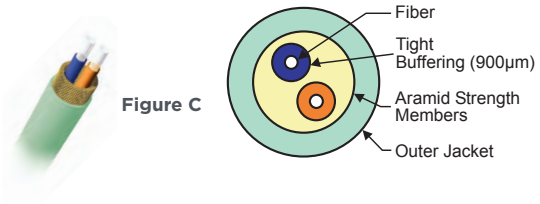
- Fiber optic cables contain fibers for use in optical fiber applications including: local area networks (LANs), wide area networks (WANs), fiber to the curb (FTTC), fiber to the home (FTTH), fiber to the desk (FTTD) and others.
- TE Connectivity's optical fiber system is a high-performance cabling system designed to meet or exceed the requirements of 10 Gigabit Ethernet application.
- Optical fiber cables are tested and designed to the most recent applicable industry standards for premise cabling, network and telecommunications applications.
- TE Connectivity's LightCrimp PLUS connectors offer easy installation with no epoxy or polishing required. Simply strip, cleave and crimp.

Optical Fiber Interconnect Cable

- Suitable for direct termination with epoxy/polish, LightCrimp, LightCrimp PLUS, and MT-RJ jacks for use in pigtails, and patch cords
- Simplex and zipcord cables are additionally suitable for use in internal equipment connections
- Aramid yarn reinforcement
- UL and cUL listed OFNR (riser) or OFNP (plenum)
- Hybrid cables and custom jacket colors are available
- OS2 singlemode fibers conform to IEC 60793-2-10 B1.3 specifications for low water peak OS2 fibers
- See customer specification 114-92001 at www.te.com/EnterpriseNetworks for additional information



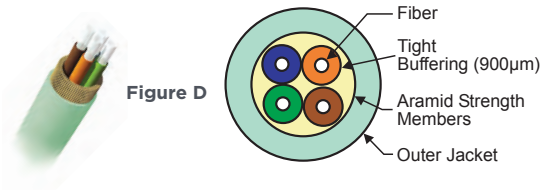




OM3 and OM4 (50/125 µm) Multimode Optical Fiber Interconnect Cable

- Outer jacket color: aqua
- All fiber is bend-insensitive

c UL us LISTED



ORDERING INFORMATION

Cable Type	Fiber Count	Unit Count Units (Fibers/Unit)	Figure	Part Number OM3 Riser (OFNR)	OM3 Plenum (OFNP)	OM4 Riser (OFNR)	OM4 Plenum (OFNP)
Simplex (2.0 mm)	1	1 (1)		3-1553406-9	3-1553407-9	4-1553406-9	4-1553407-9
Simplex (2.9 mm)	1	1 (1)	A	3-1553408-9	3-1553409-9	4-1553408-9	4-1553409-9
Zipcord (2.0 mm)	2	2 (1)		3-1553410-9	3-1553411-9	4-1553410-9	4-1553411-9
Zipcord (2.9 mm)	2	2 (1)	B	3-1553412-9	3-1553413-9	4-1553412-9	4-1553413-9
Dual (2.9 mm)	2	1 (2)	C	3-1553414-9	3-1553415-9	4-1553414-9	4-1553415-9
Dual (4.8 mm)	2	1 (2)		3-1553416-9	3-1553417-9	4-1553416-9	4-1553417-9
Quad (4.8 mm)	4	1 (4)	D	3-1553418-9	3-1553419-9	4-1553418-9	4-1553419-9

50/125 µm OM2 Multimode Optical Fiber Interconnect Cable

- Outer jacket color: orange
- All fiber is bend-insensitive

c UL us LISTED

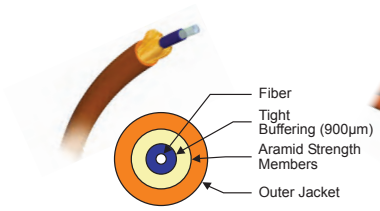


Figure A

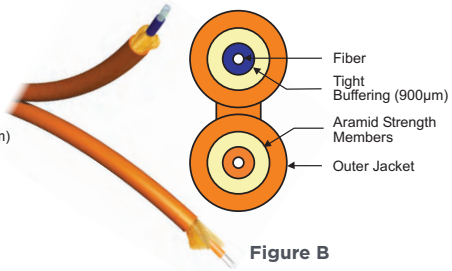


Figure B

Figure C

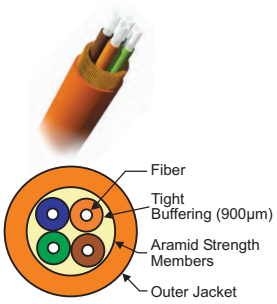


Figure D

ORDERING INFORMATION

				Part Number	
Cable Type	Fiber Count	Unit Count Units (Fibers/Unit)	Figure	Riser (OFNR)	Plenum (OFNP)
Simplex (2.0 mm)	1	1 (1)		1-1553406-2	1-1553407-2
Simplex (2.9 mm)	1	1 (1)	A	1-1553408-2	1-1553409-2
Zipcord (2.0 mm)	2	2 (1)		1-1553410-2	1-1553411-2
Zipcord (2.9 mm)	2	2 (1)	B	1-1553412-2	1-1553413-2
Dual (2.9 mm)	2	1 (2)	C	1-1553414-2	1-1553415-2
Dual (4.8 mm)	2	1 (2)		1-1553416-2	1-1553417-2
Quad (4.8 mm)	4	1 (4)	D	1-1553418-2	1-1553419-2

62.5/125 µm OM1 Multimode Optical Fiber Interconnect Cable

- Outer jacket color: orange

c UL us LISTED

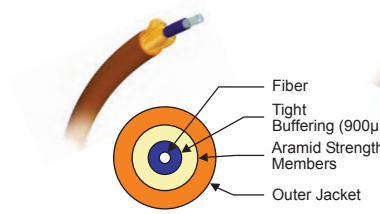


Figure A

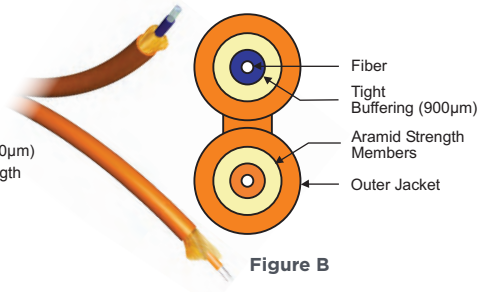


Figure B

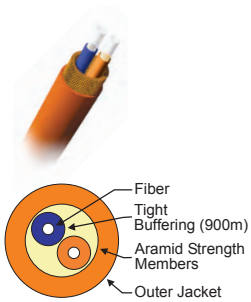


Figure C

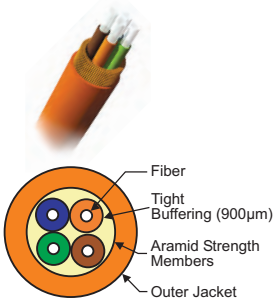


Figure D

ORDERING INFORMATION

				Part Number	
Cable Type	Fiber Count	Unit Count Units (Fibers/Unit)	Figure	Riser (OFNR)	Plenum (OFNP)
Simplex (2.0 mm)	1	1 (1)		1-1553406-1	1-1553407-1
Simplex (2.9 mm)	1	1 (1)	A	1-1553408-1	1-1553409-1
Zipcord (2.0 mm)	2	2 (1)		1-1553410-1	1-1553411-1
Zipcord (2.9 mm)	2	2 (1)	B	1-1553412-1	1-1553413-1
Dual (2.9 mm)	2	1 (2)	C	1-1553414-1	1-1553415-1
Dual (4.8 mm)	2	1 (2)		1-1553416-1	1-1553417-1
Quad (4.8 mm)	4	1 (4)	D	1-1553418-1	1-1553419-1

OS2 Singlemode Optical Fiber Interconnect Cable

- Outer jacket color: yellow
- All fiber is bend-insenstive ITU-T G657.A2

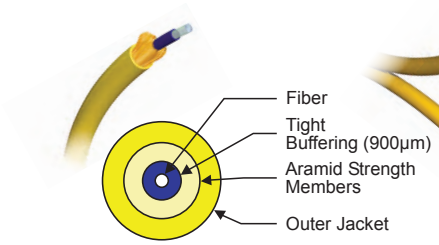


Figure A

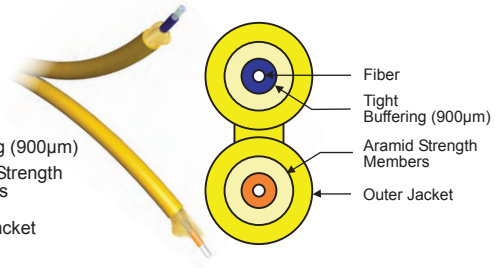


Figure B

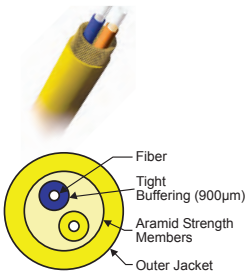


Figure C

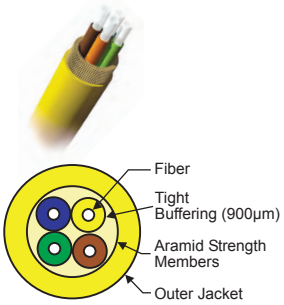


Figure D

ORDERING INFORMATION

Cable Type/Jacket Diameter	Fiber Count	Unit Count Units (Fibers/Unit)	Figure	Riser (OFNR)	Plenum (OFNP)
Simplex (2.0 mm)	1	1 (1)		7-1553406-3	7-1553407-3
Simplex (2.9 mm)	1	1 (1)	A	7-1553408-3	7-1553409-3
Zipcord (2.0 mm)	2	2 (1)		7-1553410-3	7-1553411-3
Zipcord (2.9 mm)	2	2 (1)	B	7-1553412-3	7-1553413-3
Dual (2.9 mm)	2	1 (2)	C	7-1553414-3	7-1553415-3
Dual (4.8 mm)	2	1 (2)		7-1553416-3	7-1553417-3
Quad (4.8 mm)	4	1 (4)	D	7-1553418-3	7-1553419-3

Fiber

Fiber Optic Cables and Field Terminated Connectors

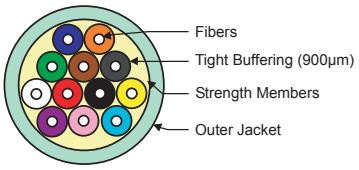
Optical Fiber Distribution Cable

- Suitable for horizontal and in-building backbone cabling and for direct termination with epoxy/polish, LightCrimp, LightCrimp PLUS and MT-RJ jacks
- Strippable 900 µm tight buffer coating allows for easy connectorization
- TIA color-coded fibers for easy identification
- UL and cUL listed OFNR (riser) or OFNP (plenum)
- Hybrid cables and other jacket colors are available
- OS2 singlemode fibers conform to IEC 60793-2-10B1.3 specifications for low water peak OS1 fibers
- See customer specification 114-92000 at: www.te.com/EnterpriseNetworks for additional information

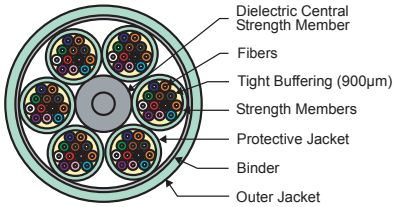
Figure A

Figure B

Figure C



12-Fiber Cable Cross Section



72-Fiber Cable Cross Section

OM3 and OM4 (50/125 m) Multimode Optical Fiber Distribution Cable

- Outer jacket color: aqua
- All fiber is bend-insensitive

c UL us LISTED

ORDERING INFORMATION

Fiber Count	Unit Count Unit (Fibers/Unit)	Figure	Part Number OM3 Riser (OFNR)	OM3 Plenum (OFNP)	OM4 Riser (OFNR)	OM4 Plenum (OFNP)
6	1 (6)	A	3-1553307-9	3-1553308-9	4-1553307-9	4-1553308-9
8	1 (8)		3-1553309-9	3-1553310-9	4-1553309-9	4-1553310-9
12	1 (12)		3-1553311-9	3-1553312-9	4-1553311-9	4-1553312-9
24	1 (24)		3-1553313-9	3-1553314-9	4-1553313-9	4-1553314-9
	2 (12)	B	3-1553315-9	3-1553316-9	4-1553315-9	4-1553316-9
	4 (6)		3-1553317-9	3-1553318-9	4-1553317-9	4-1553318-9
36	6 (6)		3-1553319-9	3-1553320-9	4-1553319-9	4-1553320-9
48	4 (12)	C	3-1553321-9	3-1553322-9	4-1553321-9	4-1553322-9
72	6 (12)		3-1553323-9	3-1553324-9	4-1553323-9	4-1553324-9
96	8 (12)		3-1553325-9	3-1553326-9	4-1553325-9	4-1553326-9
144	12 (12)		3-1553327-9	3-1553328-9	4-1553327-9	4-1553328-9

50/125 µm OM2 Multimode Optical Fiber Interconnect Cable

- Outer jacket color: orange
- All fiber is bend-insensitive

c UL us LISTED

ORDERING INFORMATION

Fiber Count	Unit Count Unit (Fibers/Unit)	Figure	Part Number Riser (OFNR)	Part Number Plenum (OFNP)
6	1 (6)	A	1-1553307-2	1-1553308-2
8	1 (8)		1-1553309-2	1-1553310-2
12	1 (12)		1-1553311-2	1-1553312-2
24	1 (24)		1-1553313-2	1-1553314-2
	2 (12)	B	1-1553315-2	1-1553316-2
	4 (6)		1-1553317-2	1-1553318-2
36	6 (6)		1-1553319-2	1-1553320-2
48	4 (12)	C	1-1553321-2	1-1553322-2
72	6 (12)		1-1553323-2	1-1553324-2
96	8 (12)		1-1553325-2	1-1553326-2
144	12 (12)		1-1553327-2	1-1553328-2

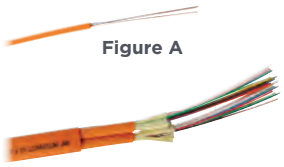


Figure A

Figure B

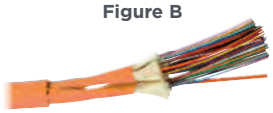
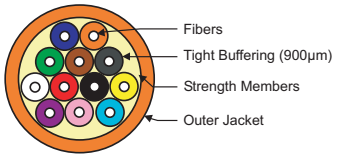
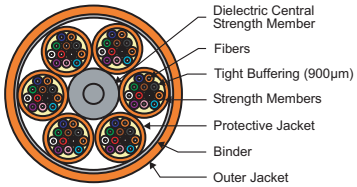


Figure C



12-Fiber Cable Cross Section



72-Fiber Cable Cross Section

62.5/125 µm OM1 Multimode Optical Fiber Interconnect Cable

- Outer jacket color: orange

c UL us LISTED

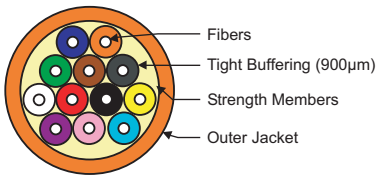
ORDERING INFORMATION

Fiber Count	Unit Count Unit (Fibers/Unit)	Figure	Part Number Riser (OFNR)	Part Number Plenum (OFNP)
6	1 (6)	A	1-1553307-1	1-1553308-1
8	1 (8)		1-1553309-1	1-1553310-1
12	1 (12)		1-1553311-1	1-1553312-1
24	1 (24)		1-1553313-1	1-1553314-1
	2 (12)	B	1-1553315-1	1-1553316-1
	4 (6)		1-1553317-1	1-1553318-1
36	6 (6)		1-1553319-1	1-1553320-1
48	4 (12)	C	1-1553321-1	1-1553322-1
72	6 (12)		1-1553323-1	1-1553324-1
96	8 (12)		1-1553325-1	1-1553326-1
144	12 (12)		1-1553327-1	1-1553328-1

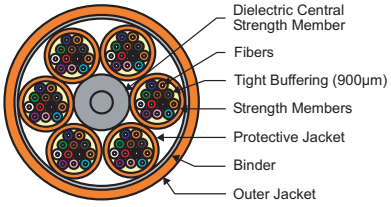
Figure A

Figure B

Figure C



12-Fiber Cable Cross Section



72-Fiber Cable Cross Section

OS2 Singlemode Optical Fiber Interconnect Cable

- Outer jacket color: yellow
- All fiber is bend insensitive ITU-T G.657.A2

c UL us LISTED

ORDERING INFORMATION

Fiber Count	Unit Count Unit (Fibers/Unit)	Figure	Riser (OFNR)	Plenum (OFNP)
6	1 (6)	A	7-1553307-3	7-1553308-3
8	1 (8)		7-1553309-3	7-1553310-3
12	1 (12)		7-1553311-3	7-1553312-3
24	1 (24)		7-1553313-3	7-1553314-3
	2 (12)	B	7-1553315-3	7-1553316-3
	4 (6)		7-1553317-3	7-1553318-3
36	6 (6)		7-1553319-3	7-1553320-3
48	4 (12)	C	7-1553321-3	7-1553322-3
72	6 (12)		7-1553323-3	7-1553324-3
96	8 (12)		7-1553325-3	7-1553326-3
144	12 (12)		7-1553327-3	7-1553328-3

Figure A

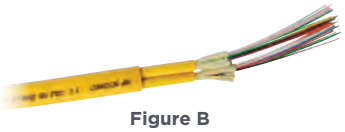
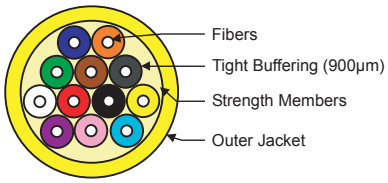
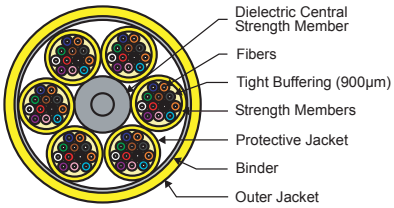


Figure B

Figure C



12-Fiber Cable Cross Section



72-Fiber Cable Cross Section

Interlocking Armor Optical Fiber Distribution Cable

- Robust construction provides extra protection for optical fibers
- Interlocking armor enhances flexibility
- Lightweight aluminum armor simplifies handling
- Installer-friendly plenum rated over-jacketing makes cable pulls easier
- Outer/over jacketing color: aqua (OM3 and OM4); orange (OM2 and OM1); yellow (singlemode)
- Hybrid cables and other jacket colors are available
- Pending local codes, may eliminate the need for innerduct
- OFCP (plenum) rated
- TIA color-coded fibers
- Strippable 900 µm tight buffer coating allows for easy connectorization
- Indoor/Outdoor and specialty versions available

ORDERING INFORMATION

Fiber Count	Unit Count Units (Fibers/Unit)	UL/NEC Ratings	OM4 (50/125µm) (aqua)	OM3 (50/125µm) (aqua)	OM2 (50/125µm) (orange)	OM1 (62.5/125µm) (orange)	OS1 Singlemode (yellow)
6	1 (6)	Plenum (OFCP)	7-1777121-7	3-1777121-7	2-1777121-7	1-1777121-7	4-1777121-7
12	1 (12)	Plenum (OFCP)	7-1777117-7	3-1777117-7	2-1777117-7	1-1777117-7	4-1777117-7
24	1 (24)	Plenum (OFCP)	4-1553420-9	3-1553420-9	1-1553420-2	1-1553420-1	7-1553420-3
	2(12)	Plenum (OFCP)	7-1777122-7	3-1777122-7	2-1777122-7	1-1777122-7	4-1777122-7
48	4 (12)	Plenum (OFCP)	7-1777123-7	3-1777123-7	2-1777123-7	1-1777123-7	4-1777123-7
72	6 (12)	Plenum (OFCP)	7-1777124-7	3-1777124-7	2-1777124-7	1-1777124-7	4-1777124-7

Optical Fiber Indoor/Outdoor Cable

- Suitable for building and inter-building backbone cabling
- Can eliminate the need for a transition point and splicing when entering buildings – go directly from outdoors into building riser or plenum spaces
- Water-blocked buffer tube for water penetration protection
- Flame-retardant UV-protected jacket for harsh outdoor environments
- All-dielectric construction
- UL and cUL listed OFNR (riser) or OFNP (plenum)
- Outer jacket color is black for all fiber types
- Single loose tube cables:
  - TIA color-coded fibers for easy identification
  - Water-blocked buffer tube for water penetration protection
  - Small diameter single tube construction saves space inside ducts
- Stranded loose tube cables:
  - Hybrid cables and other jacket colors are available
  - Reverse oscillating lay construction for easy midspan access
  - Dry water blocking technology
  - TIA color-coded fibers in TIA color-coded tubes for easy identification
- See customer specification 114-92002 at: www.te.com/EnterpriseNetworks for additional information

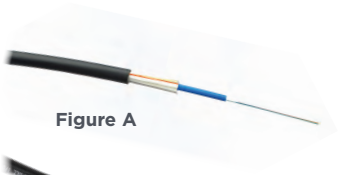
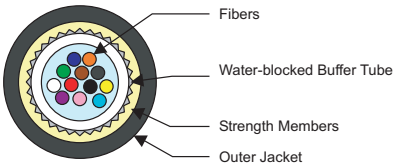


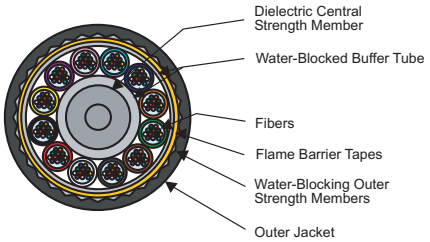
Figure A

Figure B

Figure C



12-Fiber Cable Cross Section



144-Fiber Cable Cross Section

OM3 and OM4 (50/125 µm) Optical Fiber Indoor/Outdoor Cable

ORDERING INFORMATION

Cable Type	Fiber Count	Unit Count Unit (Fibers/Unit)	Figure	Part Number OM3 (50/125µm) Riser (OFNR)	OM3 (50/125µm) Plenum (OFNP)	OM4 (50/125µm) Riser (OFNR)	OM4 (50/125µm) Plenum (OFNP)
Single Loose Tube	6	1 (6)	A	6-1553342-4	6-1553343-4	6-1553342-5	6-1553343-5
	8	1 (8)		6-1553344-4	6-1553345-4	6-1553344-5	6-1553345-5
	12	1 (12)	B	6-1553346-4	6-1553347-4	6-1553346-5	6-1553347-5
Stranded Loose Tube	24	2 (12)		6-1553348-4	6-1553349-4	6-1553348-5	6-1553349-5
	36	3 (12)		6-1553350-4	6-1553351-4	6-1553350-5	6-1553351-5
	48	4 (12)	C	6-1553352-4	6-1553353-4	6-1553352-5	6-1553353-5
	72	6 (12)		6-1553354-4	6-1553355-4	6-1553354-5	6-1553355-5
	96	8 (12)		6-1553356-4	6-1553357-4	6-1553356-5	6-1553357-5
	144	12 (12)		6-1553358-4	6-1553359-4	6-1553358-5	6-1553359-5

OM2, OM1 and Singlemode Optical Fiber Indoor/Outdoor Cable

ORDERING INFORMATION

Cable Type	Fiber Count	Unit Count Units (Fibers/Unit)	Figure	OM2 (50/125m) Riser (OFNR)	OM2 (50/125m) Plenum (OFNP)	OM1 (62.5/125m) Riser (OFNR)	OM1 (62.5/125m) Plenum (OFNP)	OS2 Singlemode Riser (OFNR)	OS2 Singlemode Plenum (OFNP)
Single Loose Tube	6	1 (6)	A	6-1553342-2	6-1553343-2	6-1553342-1	6-1553343-1	6-1553342-3	6-1553343-3
	8	1 (8)		6-1553344-2	6-1553345-2	6-1553344-1	6-1553345-1	6-1553344-3	6-1553345-3
Standard Loose Tubet	12	1 (12)	B	6-1553346-2	6-1553347-2	6-1553346-1	6-1553347-1	6-1553346-3	6-1553347-3
	24	2 (12)		6-1553348-2	6-1553349-2	6-1553348-1	6-1553349-1	6-1553348-3	6-1553349-3
	36	3 (12)		6-1553350-2	6-1553351-2	6-1553350-1	6-1553351-1	6-1553350-3	6-1553351-3
	48	4 (12)	C	6-1553352-2	6-1553353-2	6-1553352-1	6-1553353-1	6-1553352-3	6-1553353-3
	72	6 (12)		6-1553354-2	6-1553355-2	6-1553354-1	6-1553355-1	6-1553354-3	6-1553355-3
	96	8 (12)		6-1553356-2	6-1553357-2	6-1553356-1	6-1553357-1	6-1553356-3	6-1553357-3
	144	12 (12)		6-1553358-2	6-1553359-2	6-1553358-1	6-1553359-1	6-1553358-3	6-1553359-3

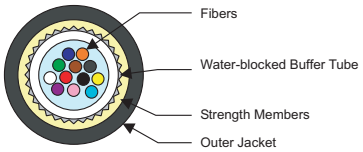
Fiber

Fiber Optic Cables and Field Terminated Connectors

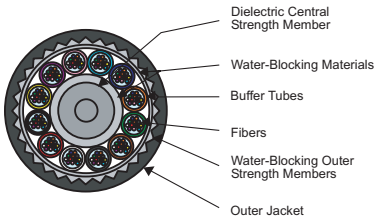
Optical Fiber Outside Plant (OSP) Cable

- Suitable for inter-building backbone cabling (aerial, duct or direct burial)
- Dry water-blocking technology
- UV-protected jacket for harsh outdoor environment
- Low friction jacket for ease of pulling through ducts
- All-dielectric construction
- Outer jacket color is black
- See customer specification 114-92003 at: www.te.com/EnterpriseNetworks for additional information
- Single loose tube cables:
  - TIA color-coded fibers for easy identification
  - Small diameter single tube construction saves space inside ducts
- Stranded loose tube cables:
  - Reverse oscillating lay construction for easy midspan access
  - TIA color-coded fibers and buffer tubes for easy identification

Figure A



12-Fiber Cable Cross Section



144-Fiber Cable Cross Section

ORDERING INFORMATION

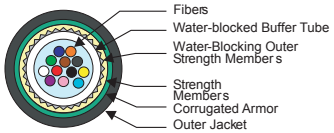
Fiber Count	Unit Count Units (Fibers/Unit)	Figure	OM4 (50/125µm)	OM3 (50/125µm)	OM2 (50/125µm)	OM1 (62.5/125µm)	OS2 Singlemode
4	1 (4)		6-1553386-5	6-1553386-4	6-1553386-2	6-1553386-1	6-1553386-3
6	1 (6)		6-1553387-5	6-1553387-4	6-1553387-2	6-1553387-1	6-1553387-3
8	1 (8)		6-1553388-5	6-1553388-4	6-1553388-2	6-1553388-1	6-1553388-3
12	1 (12)		6-1553389-5	6-1553389-4	6-1553389-2	6-1553389-1	6-1553389-3
24	2 (12)		6-1553390-5	6-1553390-4	6-1553390-2	6-1553390-1	6-1553390-3
36	3 (12)		6-1553391-5	6-1553391-4	6-1553391-2	6-1553391-1	6-1553391-3
48	4 (12)		6-1553392-5	6-1553392-4	6-1553392-2	6-1553392-1	6-1553392-3
72	6 (12)		6-1553393-5	6-1553393-4	6-1553393-2	6-1553393-1	6-1553393-3
96	8 (12)		6-1553394-5	6-1553394-4	6-1553394-2	6-1553394-1	6-1553394-3
144	12 (12)	A	6-1553395-5	6-1553395-4	6-1553395-2	6-1553395-1	6-1553395-3

Multimode Optical Fiber Outside Plant Armored (OSPA) Cable

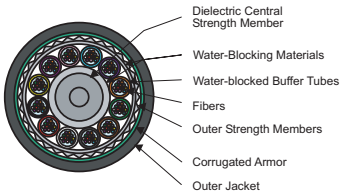
- Suitable for inter-building backbone cabling (aerial, duct or direct buried)
- Dry water-blocking technology
- UV-protected jacket for harsh outdoor environment
- Low friction jacket for ease of pulling through ducts
- Corrugated steel tape armor for rugged environments and rodent protection
- Outer jacket color is black for all fiber types
- See customer specification 114-92003 at: www.te.com/EnterpriseNetworks for additional information
- Single loose tube cables:
  - TIA color-coded fibers for easy identification
  - Small diameter single tube construction saves space inside ducts
- Stranded loose tube cables:
  - TIA color-coded fibers and buffer tubes for easy identification
  - Reverse oscillating lay construction for easy midspan access
  - Hybrid cables (with singlemode and multimode fibers) are available to provide a built-in migration path for future applications that will require singlemode fibers

Figure A

Figure B



12-Fiber Cable Cross Section



144-Fiber Cable Cross Section

ORDERING INFORMATION

Cable Type	Fiber Count	Unit Count Units (Fibers/Unit)	Figure	OM4 (50/125µm)	OM3 (50/125µm)	OM2 (50/125µm)	OM1 (62.5/125µm)	OS2 Singlemode
Single Loose Tube	4	1 (4)		6-1553396-5	6-1553396-4	6-1553396-2	6-1553396-1	6-1553396-3
	6	1 (6)	A	6-1553397-5	6-1553397-4	6-1553397-2	6-1553397-1	6-1553397-3
	8	1 (8)		6-1553398-5	6-1553398-4	6-1553398-2	6-1553398-1	6-1553398-3
	12	1 (12)		6-1553399-5	6-1553399-4	6-1553399-2	6-1553399-1	6-1553399-3
Stranded Loose Tube	24	2 (12)		6-1553400-5	6-1553400-4	6-1553400-2	6-1553400-1	6-1553400-3
	36	3 (12)		6-1553401-5	6-1553401-4	6-1553401-2	6-1553401-1	6-1553401-3
	48	4 (12)	B	6-1553402-5	6-1553402-4	6-1553402-2	6-1553402-1	6-1553402-3
	72	6 (12)		6-1553403-5	6-1553403-4	6-1553403-2	6-1553403-1	6-1553403-3
	96	8 (12)		6-1553404-5	6-1553404-4	6-1553404-2	6-1553404-1	6-1553404-3
	144	12 (12)		6-1553405-5	6-1553405-4	6-1553405-2	6-1553405-1	6-1553405-3

Multimode Optical Fiber Performance

Fiber Type	Gigabit Ethernet @ 850 nm	Gigabit Ethernet @ 1300 nm	Gigabit Ethernet @ 1310 nm	10 Gigabit Ethernet @ 850 nm	10 Gigabit Ethernet @ 1300 nm	10 Gigabit Ethernet @1310 nm
OM4 (850 nm LO 50 µm) Multimode	>800 m	550 m	–	550 m	300 m	–
OM3 (850 nm LO 50 µm) Multimode	800 m	550 m	–	300 m	300 m	–
OM2 (50/125 µm) Multimode	550 m	550 m	–	82 m	300 m	–
OM1 (62.5/125 µm) Multimode	300 m	550 m	–	33 m	300 m	–
Singlemode	–	–	5000 m	–	–	10000 m

Multimode (850/1300 nm) and Singlemode (1310/1550 nm) Optical Fiber Cable Performance Specifications

		Maximum Attenuation dB/km		Maximum Attenuation dB/km		OFL Bandwidth MHz-km		Laser Bandwidth MHz-km	
Cable Type	**Fiber Type**	**850 nm**	**1300 nm**	**1310 nm**	**1550 nm**	**850 nm**	**1300 nm**	**850 nm**	**1300 nm**
OM3 and OM4 indoor, Indoor/Outdoor, and OSP Loose Tube Cables	OM3 Multimode	3.0	1.0	–	–	1500	500	2000	–
	OM4 Multimode	3.0	1.0	–	–	3500	500	4700	–
OM2 (50/125 µm) Indoor, Indoor/ Outdoor and OSP Loose Tube Cables	OM2 Multimode	3.5	1.5	–	–	500	500	–	–
OM1 (62.5/125 µm) Indoor, Indoor/Outdoor and OSP Loose Tube Cables	OM1 Multimode	3.5	1.2	–	–	200	500	–	–
Singlemode Indoor and Indoor/ Outdoor Cables	SM OS2 BIF	–	–	0.4	0.3	–	–	–	–
Singlemode OSP Loose Tube Cables	SM OS2 BIF	–	–	0.35	0.25	–	–	–	–

Optical Fiber Cable Temperature Ranges

Cable Type	Condition	Riser	Plenum
Interconnect (Tight Buffered) Cables	Storage	-40° C to +65° C (-40° F to +149° F)	-40° C to +65° C (-40° F to +149° F)
	Operating	-20° C to +50° C (-4° F to +122° F)	-20° C to +50° C (-4° F to +122° F)
	Installation	-20° C to +50° C (-4° F to +122° F)	-20° C to +50° C (-4° F to +122° F)
Indoor, Distribution (Tight Buffered) Cables	Storage	-40° C to +70° C (-40° F to +158° F)	-40° C to +70° C (-40° F to +158° F)
	Operating	-20° C to +70° C (-4° F to +158° F)	0° C to +70° C (32° F to +158° F)
	Installation	-10° C to +60° C (14° F to +140° F)	0° C to +60° C (32° F to +140° F)
Indoor/Outdoor Cables	Storage	-40° C to +70° C (-40° F to +160° F)	-40° C to +70° C (-40° F to +160° F)
	Operating	-40° C to +70° C (-40° F to +160° F)	-40° C to +70° C (-40° F to +160° F)
	Installation	-20° C to +60° C (-4° F to +140° F)	0° C to +60° C (32° F to +140° F)
Stranded Cables			
OSP (Loose Tube) Cables	Storage	-40° C to +70° C (-40° F to +158° F)	–
	Operating	-40° C to +70° C (-40° F to +158° F)	–
	Installation	-30° C to +60° C (-22° F to +140° F)	–

Optical Fiber Cable Technical Information

Cable Type	Fiber Count	Unit Count Units (Fibers/Unit)	Diameter mm (in)	Weight kg/km (lb/kft)	Tensile Load N (lbf)		Bending Radius mm (in)	
					Installation	Long Term	Installation	Long Term
Outside Plant, Single Loose Tube	4	1 (4)	8.3 (0.33)	50 (34)	2670 (600)	890 (200)	176 (6.9)	88 (3.5)
	6	1 (6)	8.3 (0.33)	50 (34)	2670 (600)	890 (200)	176 (6.9)	88 (3.5)
	8	1 (8)	8.3 (0.33)	50 (34)	2670 (600)	890 (200)	176 (6.9)	88 (3.5)
	12	1 (12)	8.3 (0.33)	50 (34)	2670 (600)	890 (200)	176 (6.9)	88 (3.5)
Outside Plant, Stranded Loose Tube	24	2 (12)	11.0 (0.43)	100 (67)	2670 (600)	890 (200)	242 (9.5)	121 (4.8)
	36	3 (12)	11.0 (0.43)	93 (62)	2670 (600)	890 (200)	242 (9.5)	121 (4.8)
	48	4 (12)	11.0 (0.43)	97 (65)	2670 (600)	890 (200)	242 (9.5)	121 (4.8)
	72	6 (12)	11.9 (0.47)	130 (87)	2670 (600)	890 (200)	252 (9.9)	126 (5.0)
	96	8 (12)	13.6 (0.53)	158 (106)	2670 (600)	890 (200)	287 (11.3)	144 (5.6)
	144	12 (12)	17.6 (0.69)	252 (169)	2670 (600)	890 (200)	364 (14.3)	182 (7.2)
Outside Plant, Armored Single Loose Tube	4	1 (4)	10.9 (0.43)	140 (94)	2670 (600)	890 (200)	244 (9.6)	122 (4.8)
	6	1 (6)	10.9 (0.43)	140 (94)	2670 (600)	890 (200)	244 (9.6)	122 (4.8)
	8	1 (8)	10.9 (0.43)	140 (94)	2670 (600)	890 (200)	244 (9.6)	122 (4.8)
	12	1 (12)	10.9 (0.43)	140 (94)	2670 (600)	890 (200)	244 (9.6)	122 (4.8)
Outside Plant, Armored Stranded Loose Tube	24	2 (12)	13.8 (0.55)	214 (144)	2670 (600)	890 (200)	315 (12.4)	158 (6.2)
	36	3 (12)	13.8 (0.55)	218 (146)	2670 (600)	890 (200)	315 (12.4)	158 (6.2)
	48	4 (12)	13.8 (0.55)	223 (150)	2670 (600)	890 (200)	315 (12.4)	158 (6.2)
	72	6 (12)	14.8 (0.58)	265 (178)	2670 (600)	890 (200)	335 (13.2)	167 (6.6)
	96	8 (12)	16.7 (0.69)	307 (206)	2670 (600)	890 (200)	378 (14.9)	189 (7.4)
	144	12 (12)	21.4 (0.84)	498 (335)	2670 (600)	890 (200)	455 (17.9)	228 (9)

Optical Fiber Cable Technical Information (Continued)

Cable Type	Fiber Count	Unit Count Units (Fibers/Unit)	UL/NEC Ratings	Diameter mm (in)	Weight kg/km (lb/kft)	Tensile Load N (lbf)		Bending Radius mm (in)	
						Installation	Long Term	Installation	Long Term
Interconnect, Simplex	1	1 (1)	OFNR	2.0 (0.08)	5 (3)	40 (9)	12 (3)	50 (1.97)	25 (0.98)
			OFNP	2.0 (0.08)	6 (4)	40 (9)	12 (3)	50 (1.97)	25 (0.98)
			OFNR	2.9 (0.11)	8 (5)	100 (22)	30 (7)	58 (2.3)	29 (1.1)
			OFNP	2.9 (0.11)	9 (6)	100 (22)	30 (7)	58 (2.3)	29 (1.1)
Interconnect, Zipcord	2	2 (1)	OFNR	2.0 (0.08) x 4.1 (0.16)	8 (5)	40 (9)	12 (3)	50 (1.97)	25 (0.98)
			OFNP	2.0 (0.08) x 4.1 (0.16)	10 (7)	40 (9)	12 (3)	50 (1.97)	25 (0.98)
			OFNR	2.9 (0.11) x 5.9 (0.23)	15 (10)	100 (22)	30 (7)	58 (2.3)	29 (1.1)
			OFNP	2.9 (0.11) x 5.9 (0.23)	15 (10)	100 (22)	30 (7)	58 (2.3)	29 (1.1)
Interconnect, Dual	2	1 (2)	OFNR	2.9 (0.11)	7 (5)	100 (22)	30 (7)	57 (2.2)	29 (1.1)
			OFNP	2.9 (0.11)	9 (6)	100 (22)	30 (7)	57 (2.2)	29 (1.1)
			OFNR	4.8 (0.3)	20 (13)	100 (22)	30 (7)	96 (3.8)	48 (1.9)
			OFNP	4.8 (0.3)	30 (20)	100 (22)	30 (7)	96 (3.8)	48 (1.9)
Interconnect, Quad	4	1 (4)	OFNR	4.8 (0.3)	25 (17)	100 (22)	30 (7)	96 (3.8)	48 (1.9)
			OFNP	4.8 (0.3)	30 (20)	100 (22)	30 (7)	96 (3.8)	48 (1.9)
Distribution	6	1 (6)	OFNR	5.2 (0.20)	29 (19)	660 (150)	198 (45)	114 (4.5)	57 (2.2)
			OFNP	4.8 (0.19)	24 (16)	440 (100)	132 (30)	110 (4.3)	55 (2.2)
	8	1 (8)	OFNR	5.7 (0.22)	24 (16)	660 (150)	198 (45)	136 (5.4)	68 (2.7)
			OFNP	5.0 (0.20)	26 (17)	440 (100)	132 (30)	110 (4.3)	55 (2.2)
	12	1 (12)	OFNR	6.0 (0.24)	37 (25)	660 (150)	198 (45)	128 (5)	64 (2.5)
			OFNP	5.7 (0.23)	46 (31)	440 (100)	132 (30)	128 (5)	64 (2.5)
	24	1 (24)	OFNR	8.0 (0.31)	61 (41)	1320 (300)	396 (90)	178 (7)	89 (3.5)
			OFNP	7.7 (0.30)	69 (46)	660 (150)	198 (45)	168 (6.6)	84 (3.3)
	24	2 (12)	OFNR	7.4 x 13.0 (0.29 x 0.51)	87 (58)	1320 (300)	396 (90)	284 (11.2)	142 (5.6)
			OFNP	7.0 x 12.4 (0.28 x 0.49)	92 (62)	660 (150)	198 (45)	264 (10.4)	132 (5.2)
	24	4 (6)	OFNR	13.4 (0.53)	180 (121)	1320 (300)	396 (90)	275 (10.8)	137 (5.4)
			OFNP	13.3 (0.52)	200 (134)	660 (150)	198 (45)	266 (10.5)	133 (5.2)
	36	6 (6)	OFNR	16.4 (0.65)	220 (148)	1320 (300)	396 (90)	342 (13.5)	171 (6.7)
			OFNP	16.0 (0.63)	255 (171)	660 (150)	198 (45)	327 (12.9)	164 (6.4)
	48	4 (12)	OFNR	16.0 (0.63)	250 (168)	1320 (300)	396 (90)	350 (13.8)	175 (6.9)
			OFNP	15.2 (0.60)	202 (136)	660 (150)	198 (45)	312 (12.3)	156 (6.1)
	72	6 (12)	OFNR	18.9 (0.75)	301 (202)	1320 (300)	396 (90)	386 (15.2)	193 (7.6)
			OFNP	18.5 (0.73)	316 (212)	660 (150)	198 (45)	386 (15.2)	193 (7.6)
	96	8 (12)	OFNR	22.8 (0.90)	433 (291)	1320 (300)	396 (90)	462 (18.2)	231 (9.1)
			OFNP	22.0 (0.86)	466 (313)	660 (150)	198 (45)	448 (17.6)	224 (8.8)
	144	12 (12)	OFNR	24.8 (0.98)	461 (310)	1320 (300)	396 (90)	514 (20.2)	257 (10.1)
			OFNP	24.2 (0.95)	474 (319)	660 (150)	198 (45)	514 (20.2)	257 (10.1)

Optical Fiber Cable Technical Information (Continued)

Cable Type	Fiber Count	Unit Count Units (Fibers/Unit)	UL/NEC Ratings	Diameter mm (in)	Weight kg/km (lb/kft)	Tensile Load N (lbf)		Bending Radius mm (in)	
						Installation	Long Term	Installation	Long Term
Distribution, Interlocking Armor	6	1 (6)	OFCP	13.1 (0.52)	117 (79)	1335 (300)	400 (90)	197 (7.8)	131 (5.2)
	12	1 (12)	OFCP	13.3 (0.52)	129 (87)	1335 (300)	400 (90)	199 (7.8)	133 (5.2)
	24	1 (24)	OFCP	14.8 (0.58)	176 (119)	1780 (400)	534 (120)	223 (8.8)	148 (5.8)
	24	2(12)	OFCP	18.9 (0.74)	240 (161)	1780 (400)	534 (120)	192 (7.6)	128 (5.0)
	48	4 (12)	OFCP	23.4 (0.92)	408 (274)	2640 (600)	800 (180)	351 (13.8)	234 (9.2)
	72	6 (12)	OFCP	24.7 (0.97)	537 (361)	2640 (600)	800 (180)	371 (14.6)	247 (9.7)
Indoor/ Outdoor, Single Loose Tube	6	1 (6)	OFNR	6.5 (0.26)	45 (30)	1335 (300)	400 (90)	97 (3.8)	65 (2.6)
			OFNP	6.6 (0.26)	45 (30)	1335 (300)	400 (90)	99 (3.9)	66 (2.6)
	8	1 (8)	OFNR	6.5 (0.26)	45 (30)	1335 (300)	400 (90)	97 (3.8)	65 (2.6)
			OFNP	6.6 (0.26)	46 (31)	1335 (300)	400 (90)	99 (3.9)	66 (2.6)
	12	1 (12)	OFNR	6.5 (0.26)	45 (30)	1335 (300)	400 (90)	97 (3.8)	65 (2.6)
			OFNP	6.6 (0.26)	46 (31)	1335 (300)	400 (90)	99 (3.9)	66 (2.6)
Indoor/ Outdoor, Stranded Loose Tube	24	2 (12)	OFNR	10.1 (0.40)	84 (56)	2670 (600)	890 (200)	151 (5.9)	101 (4.0)
			OFNP	9.7 (0.38)	86 (58)	2670 (600)	890 (200)	145 (5.7)	97 (3.8)
	36	3 (12)	OFNR	10.1 (0.40)	84 (56)	2670 (600)	890 (200)	151 (5.9)	101 (4.0)
			OFNP	9.7 (0.38)	86 (58)	2670 (600)	890 (200)	145 (5.7)	97 (3.8)
	48	4 (12)	OFNR	10.1 (0.40)	84 (56)	2670 (600)	890 (200)	151 (5.9)	101 (4.0)
			OFNP	9.7 (0.38)	86 (58)	2670 (600)	890 (200)	145 (5.7)	97 (3.8)
	72	6 (12)	OFNR	11.9 (0.47)	111 (75)	2670 (600)	890 (200)	178 (7.0)	119 (4.7)
			OFNP	11.7 (0.46)	101 (68)	2670 (600)	890 (200)	175 (6.9)	117 (4.6)
	96	8 (12)	OFNR	13.7 (0.54)	147 (99)	2670 (600)	890 (200)	206 (8.1)	137 (5.4)
			OFNP	13.5 (0.53)	175 (118)	2670 (600)	890 (200)	203 (8.0)	135 (5.3)
	144	12 (12)	OFNR	17.8 (0.70)	252 (169)	4448 (1000)	1335 (300)	267 (10.5)	178 (7.0)
			OFNP	17.7 (0.70)	300 (202)	4448 (1000)	1335 (300)	255 (10.1)	170 (6.7)

Fiber

Fiber Optic Cables and Field Terminated Connectors

Multimode LightCrimp PLUS Connectors (No epoxy/No polish)

- Easy installation:
  - No epoxy, no polishing
  - No bench tool required
  - Strip, cleave, and crimp
- Match fiber type of cable to boot color of LightCrimp PLUS
- Mates with standard couplers, adapters, and adapter plates
- LC small form factor design is half the size of SC
- Select appropriate part number for termination to:
  - 900 µm tight-buffered fiber or 250 µm coated fiber
  - 2.0 mm jacketed fiber
  - 3 mm jacketed fiber
- LC connector clip turns simplex connectors into duplex connectors and allows for polarity correction after termination
- LC-SECURE LightCrimp PLUS Simplex Connectors can be found in the SECURE Network Solutions Fiber Products in section 2 of the catalog

Figure A

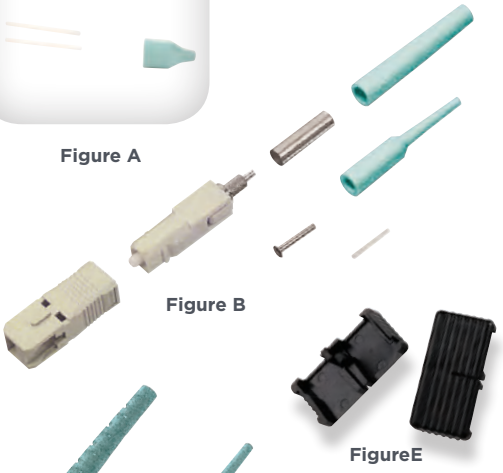


Figure B

FigureE

Figure C

Figure D

OM3 and OM4 (50/125 µm) Multimode LightCrimp PLUS Connectors (No epoxy/No polish)

ORDERING INFORMATION

Connector Type	Housing Color	Boot Color	Used With	Figure	Part Number
LC Simplex	Beige	Aqua	900 µm buffered and 250 µm coated fibers	A	6754483-4
			2.0 mm jacketed cable		1918627-3
SC Simplex	Beige	Aqua	900 µm buffered fibers, 250 µm coated fibers, and 3 mm jacketed cable	B	6588291-2
ST	Metallic	Aqua	900 µm buffered fibers, 250 µm coated fibers, and 3 mm jacketed cable	C	6278082-2
Duplex LC Clip, package of 6	Black	–	Simplex LC connectors	D	1754371-2
SC Duplex Clip two are required to make a complete clip	Black	–	Simplex SC connectors	E	6348522-1

Note: Termination instructions may be found at www.te.com/foguide

50/125 µm OM2 Multimode LightCrimp PLUS Connectors (No epoxy/No polish)

Figure A

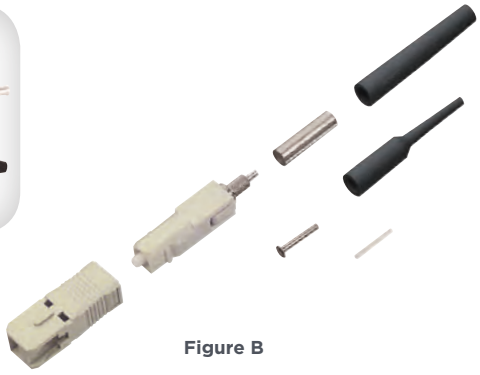


Figure B

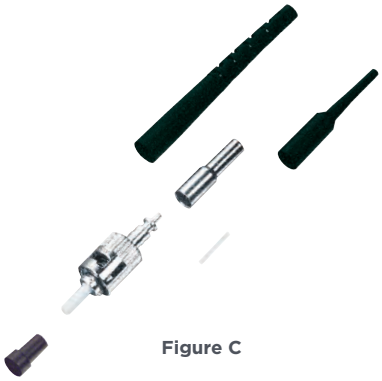


Figure C

Figure D

Figure E

ORDERING INFORMATION

Connector Type	Housing Color	Boot Color	Used With	Figure	Part Number
LC Simplex	Beige	Black	900 µm buffered and 250 µm coated fibers	A	6754483-2
			2.0 mm jacketed cable		1918627-2
SC Simplex	Beige	Black	900 µm buffered fibers, 250 µm coated fibers, and 3 mm jacketed cable	B	6278079-2
ST	Metallic	Black	900 µm buffered fibers, 250 µm coated fibers, and 3 mm jacketed cable	C	6278082-1
Duplex LC Clip, package of 6	Black	–	Simplex LC connectors	D	1754371-2
SC Duplex Clip two are required to make a complete clip	Black	–	Simplex SC connectors	E	6348522-1

Note: Termination instructions may be found at www.te.com/foguide

62.5/125 µm OM1 Multimode LightCrimp PLUS Connectors (No epoxy/No polish)

Figure A

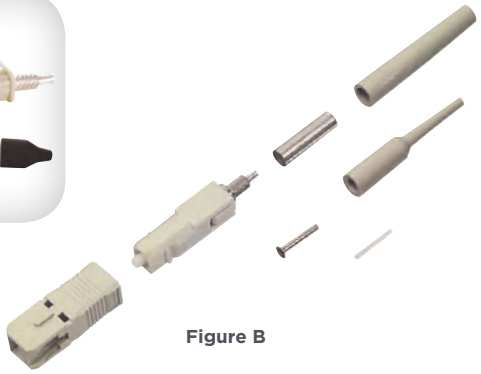


Figure B

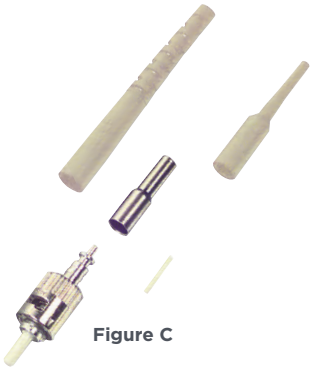


Figure C

Figure D

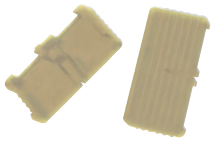


Figure E

ORDERING INFORMATION

Connector Type	Housing Color	Boot Color	Used With	Figure	Part Number
LC Simplex	Beige	Beige	900 µm buffered and 250 µm coated fibers	A	6754483-1
			2.0 mm jacketed cable		1918627-1
SC Simplex	Beige	Beige	900 µm buffered fibers, 250 µm coated fibers, and 3 mm jacketed cable	B	5492643-1
ST	Metallic	Beige	900 µm buffered fibers, 250 µm coated fibers, and 3 mm jacketed cable	C	5492642-2
Duplex LC Clip, package of 6	Beige	–	Simplex LC connectors	D	1754371-5
SC Duplex Clip two are required to make a complete clip	Beige	–	Simplex SC connectors	E	6348522-4

Note: Termination instructions may be found at www.te.com/foguide

Singlemode LightCrimp PLUS Connectors (No epoxy/No polish)

Figure A

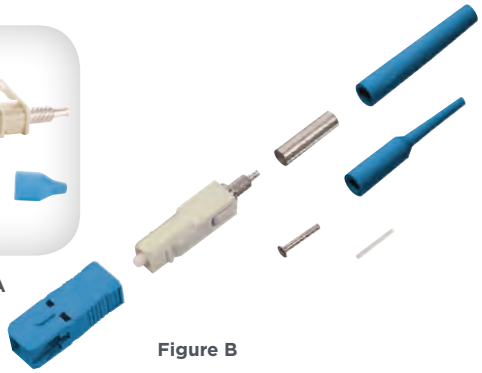


Figure B

Figure C

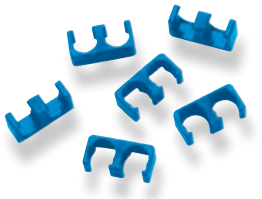


Figure D

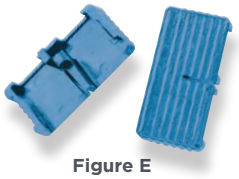


Figure E

ORDERING INFORMATION

Connector Type	Housing Color	Boot Color	Used With	Figure	Part Number
LC Simplex, APC	Green	Blue	900 µm buffered and 250 µm coated fibers		2064181-1
LC Simplex	Blue	Blue	900 µm buffered and 250 µm coated fibers	A	6754482-1
			2.0 mm jacketed cable		1918626-1
SC Simplex, APC	Green	Blue	900 µm buffered and 250 µm coated fibers		2064184-1
SC Simplex	Blue	Blue	900 µm buffered fibers, 250 µm coated fibers, and 3 mm jacketed cable	B	6693276-1
ST	Metallic	Black	900 µm buffered fibers, 250 µm coated fibers, and 3 mm jacketed cable	C	1828953-3
Duplex LC Clip, package of 6	Blue	–	Simplex LC connectors	D	1754371-4
SC Duplex Clip two are required to make a complete clip	Blue	–	Simplex SC connectors	E	6348522-3

Note: APC (Angle Polish Connector) connectors are for use with other APC products.
Termination instructions may be found at www.te.com/foguide

LightCrimp Splice

- Terminates 250 µm coated, 900 µm tight-buffered, and 2.0 mm jacketed fibers
- Use with multimode and singlemode 125 µm diameter fibers
- No epoxy, set-up, or workstation required
- Use Termination Tool Kit part number 1553212-1
- Splice Performance Characteristics:
  - Attenuation: Typical 0.1 dB
  - Return Loss: (at ambient: 18 to 28° C)
    >40 dB Multimode
    >60 dB Singele-mode
  - Operating Temperature:
    -25 to 70° C
- Tensile Retention:
  - 250 µm coated: 2.0 N
  - 900 µm buffered: 3.0 N
  - Jacketed: 50 N

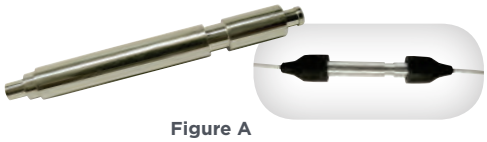


Figure A

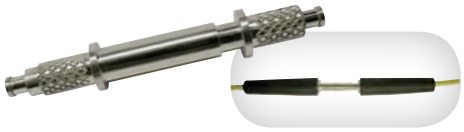


Figure B

Insert First Fiber and Complete Buffer Crimp

Insert Second Fiber and Actuate Crimp

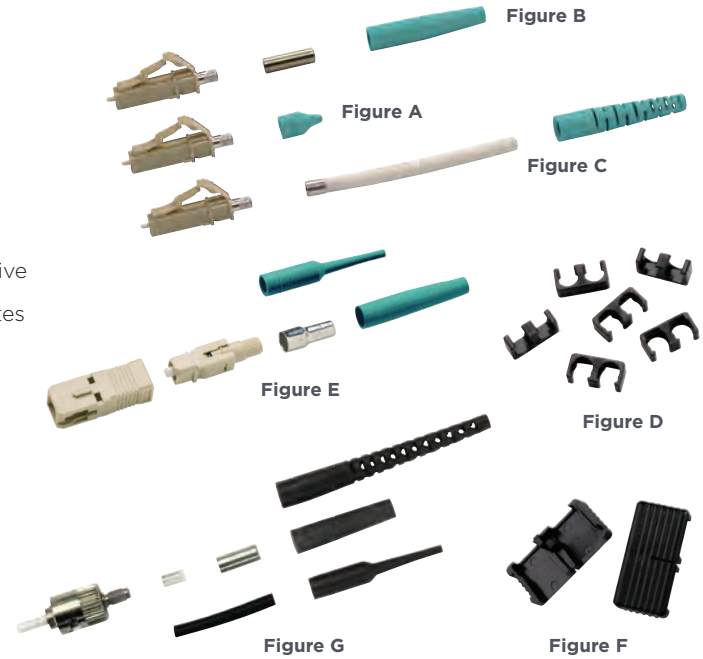
Complete Second Buffer Crimp and Remove Splice from Tool

ORDERING INFORMATION

Description	Figure	Part Number
LightCrimp Splice for 250 µm Coated and 900 µm tight-buffered Fibers	A	1985374-1
LightCrimp Splice for 2.0 mm Jacketed Fiber	B	1985805-1

Multimode Epoxy/Polish Connectors

- Each connector kit comes with accessories needed to terminate to 250 µm fiber, 900 µm tight-buffered fiber, 900 µm easy-strip, buffer tube splitter kits, 2 mm or 3 mm cable (select appropriate part number)
- Suitable for use with heat-cured or anaerobic (quick cure) adhesive
- See instruction sheet for recommended anaerobic adhesive
- Mates with standard couplers, adapters, and adapter plates
- LC small form factor design is half the size of SC
- Pre-radiused ceramic ferrules for easy polishing
- Duplex SC can be assembled using two simplex SC connectors and one duplex clip
- Boot type and coupling nut options (select appropriate part number)

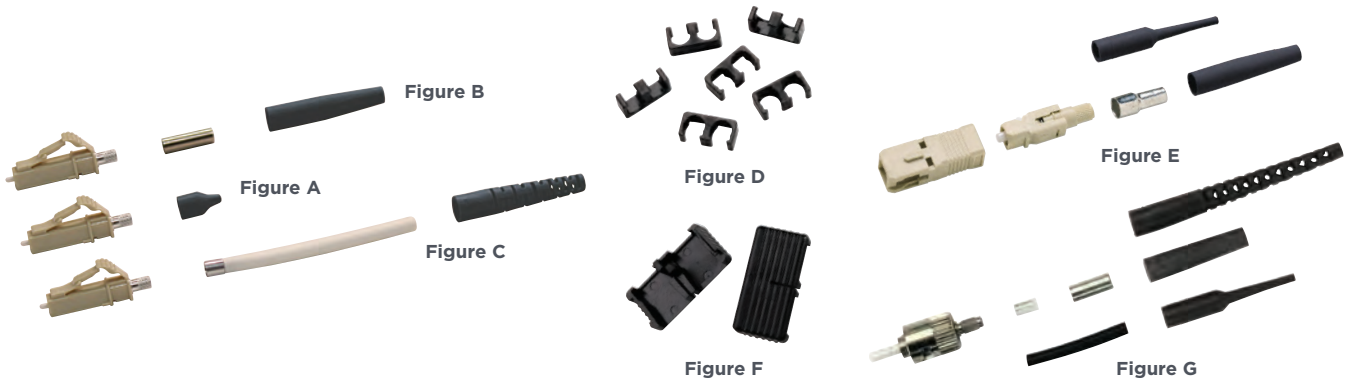


OM3 and OM4 Multimode Epoxy/Polish Connectors

ORDERING INFORMATION

Description	Housing Color	Boot Color	Used With	Figure	Part Number
LC Simplex	Beige	Aqua	900 µm buffered and 250 µm coated fibers	A	1918385-3
			2 mm jacketed cable	B	1918267-3
			3.0 mm jacketed cable	C	1918375-3
Duplex LC Clip, package of 6	Black	–	Simplex LC connectors	D	1754371-2
SC Simplex	Beige	Aqua	900 µm buffered fibers, 250 µm coated fibers, and 3 mm jacketed cable	E	1-5503948-1
			3 mm jacketed cable		1-5503948-0
			900 µm buffered and 250 µm coated fibers	E	5504932-5
			2 mm jacketed cable		5504931-5
SC Duplex Clip two are required to make a complete clip	Black	–	Simplex SC connectors	F	6348522-1
ST	Black	Black	900 µm buffered fibers, 250 µm coated fibers, and 3 mm jacketed cable		5503571-3
	Metallic	Black	900 µm buffered fibers, 250 µm coated fibers, and 3 mm jacketed cable	G	5492458-1
			3 mm jacketed cable		1-5501380-6
			900 µm buffered fibers, 250 µm coated fibers, and 3 mm jacketed cable	G	5501380-1

50/125 µm OM2 Multimode Epoxy/Polish Connectors



ORDERING INFORMATION

Description	Housing Color	Boot Color	Used With	Figure	Part Number
LC Simplex	Beige	Black	900 µm buffered and 250 µm coated fibers	A	1918385-4
			2 mm Jacketed Cable	B	1918267-4
			3.0 mm Jacketed Cable	C	1918375-4
Duplex LC Clip, package of 6	Black	–	Simplex LC Connectors	D	1754371-2
SC Simplex	Beige	Black	900 µm buffered fibers, 250 µm coated fibers, and 3 mm Jacketed Cable	E	1-5503948-3
			3 mm Jacketed Cable		1-5503948-2
			900 µm buffered and 250 µm coated fibers	E	5504932-1
			2 mm Jacketed Cable		5504931-6
SC Duplex Clip two are required to make a complete clip	Black	–	Simplex SC Connectors	F	6348522-1
ST	Black	Black	900 µm buffered fibers, 250 µm coated fibers, and 3 mm Jacketed Cable		5503571-3
	Metallic	Black	900 µm buffered fibers, 250 µm coated fibers, and 3 mm Jacketed Cable	G	5492458-1
			3 mm Jacketed Cable		1-5501380-6
			900 µm buffered fibers, 250 µm coated fibers, and 3 mm Jacketed Cable	G	5501380-1

62.5/125 µm OM1 Multimode Epoxy/Polish Connectors

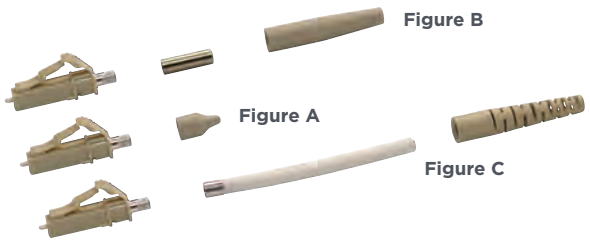


Figure D

Figure F

Figure E

Figure G

ORDERING INFORMATION

Description	Housing Color	Boot Color	Used With	Figure	Part Number
LC Simplex	Beige	Beige	900 µm buffered and 250 µm coated fibers	A	1918385-1
			2 mm jacketed cable	B	1918267-1
			3.0 mm jacketed cable	C	1918375-1
Duplex LC Clip, package of 6	Beige	–	Simplex LC connectors	D	1754371-5
SC Simplex	Beige	Beige	900 µm buffered fibers, and 3 mm jacketed cable	E	5503948-5
			3 mm jacketed cable		5503948-1
			900 µm buffered and 250 µm coated fibers	E	5504932-6
			2 mm jacketed cable		5504931-1
SC Duplex Clip two are required to make a complete clip	Beige	–	Simplex SC connectors	F	6348522-4
ST	Black	Black	900 µm buffered fibers, 250 µm coated fibers, and 3 mm jacketed cable		5503571-3
	Metallic	Black	900 µm buffered fibers, 250 µm coated fibers, and 3 mm jacketed cable	G	5492458-1
			3 mm jacketed cable		1-5501380-6
			900 µm buffered fibers, 250 µm coated fibers, and 3 mm jacketed cable	G	5501380-1

Fiber

Fiber Optic Cables and Field Terminated Connectors

Singlemode Epoxy/Polish Connectors

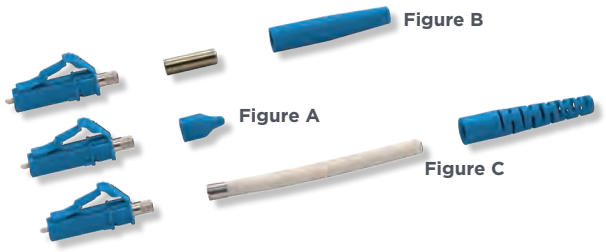


Figure D

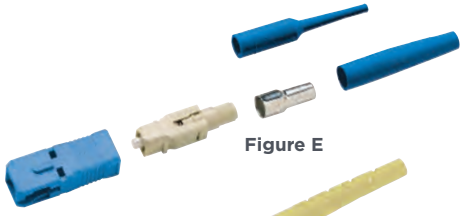


Figure E

Figure F

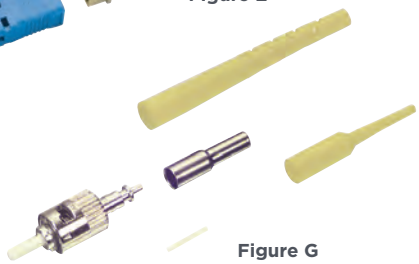


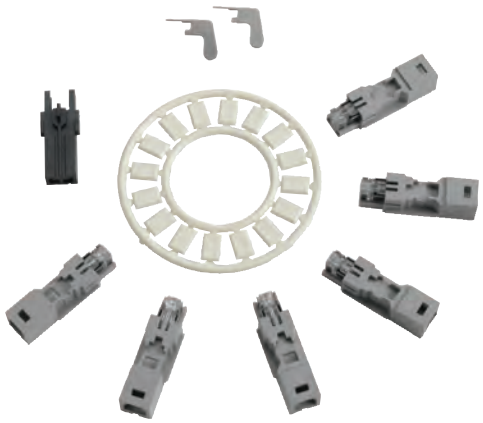
Figure G

ORDERING INFORMATION

Description	Housing Color	Boot Color	Used With	Figure	Part Number
LC Simplex	Blue	Blue	900 µm buffered and 250 µm coated fibers	A	1918384-1
			1.6 to 2 mm jacketed cable	B	1918266-1
			3.0 mm jacketed cable	C	1918374-1
Duplex LC Clip, package of 6	Blue	–	Simplex LC connectors	D	1754371-4
SC Simplex	Blue	Blue	900 µm buffered fibers, 250 µm coated fibers, and 3 mm jacketed cable	E	5504646-7
			3 mm jacketed cable		5504646-1
			900 µm buffered and 250 µm coated fibers	E	5492123-1
			2 mm jacketed cable		5504934-2
SC Duplex	Blue	Blue	2 mm jacketed cable		5504655-1
SC Duplex Clip two are required to make a complete clip	Blue	–	Simplex SC connectors	F	6348522-3
ST	Metallic	Yellow	900 µm buffered fibers and 3 mm jacketed cable		5503613-2
			900 µm buffered fibers, 250 µm coated fibers, and 3 mm jacketed cable	G	5502579-2
			900 µm buffered fibers, 250 µm coated fibers, and 3 mm jacketed cable, short boot	G	5502580-2

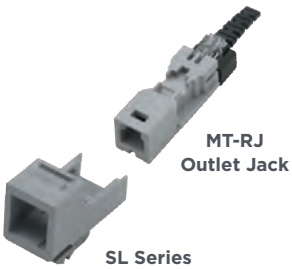
Multimode MT-RJ Jacks (No epoxy/No polish)

- Patch panel jacks terminate either two 900 µm tight-buffered fibers or two 250 µm coated fibers (select appropriate part number)
- Outlet jacks terminate two 900 µm tight-buffered fibers
- Match fiber type of cable to fiber type of MT-RJ Jack
- No epoxy, no polishing, no crimping
- Two fibers in one ferrule
- Jacks can be reterminated improving yield
- Tunable
- No bench tool required
- Small form factor design is half the size of SC duplex
- Jack design eliminates need for MT-RJ coupler
- Each outlet jack part number includes:
  - One MT-RJ jack
  - One actuation tool
  - One bend-limiting boot
  - One SL series housing – allows use in any faceplate or outlet that accepts SL series jacks
- Each patch panel jack part number includes:
  - Six patch panel jacks
  - Two actuation tools
  - One fiber guide
  - One icon wheel
- SL series housing and bend limiting boot are also available separately



MT-RJ Patch Panel Jacks

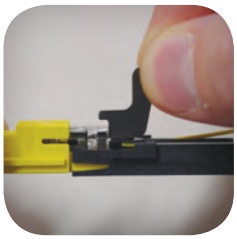
Strip



MT-RJ Outlet Jack

SL Series Housing (Gray)

Cleave



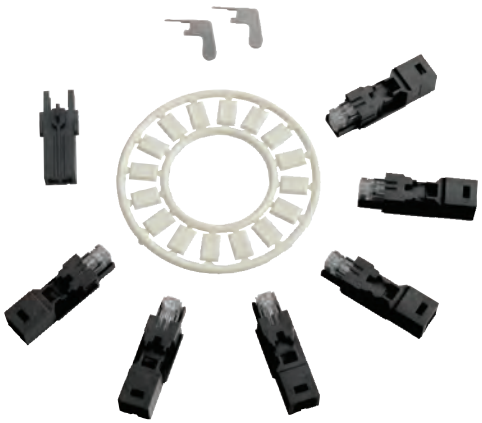
Lock

OM3 and OM4 Multimode MT-RJ Jacks (No epoxy/No polish)

ORDERING INFORMATION

Description	Jack Color	SL Series Housing Color	For Use With	
			900 µm Tight-Buffered Fibers	250 µm Coated Fibers
MT-RJ Patch Panel Jack	Gray	–	6588880-3	6278303-4
MT-RJ Outlet Jack	Gray	Gray	1-6278414-2	–

50/125 µm OM2 Multimode MT-RJ Jacks (No epoxy/No polish)



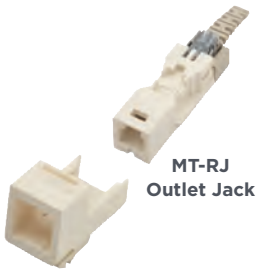
MT-RJ Patch Panel Jacks

ORDERING INFORMATION

Description	Jack Color	SL Series Housing Color	For Use With	
			900 µm Tight-buffered Fibers	250 µm Coated Fibers
MT-RJ Patch Panel Jack	Black	–	6588880-1	6278303-1
MT-RJ Outlet Jack	Black	Almond	6278414-1	–
		Black	6278414-2	–
		White	6278414-3	–
		Gray	6278414-4	–
		Orange	6278414-5	–
		Blue	6278414-6	–
		Red	6278414-7	–
		Yellow	6278414-8	–
		Green	6278414-9	–
		Violet	1-6278414-0	–
		Electrical Ivory	1-6278414-1	–

62.5/125 m OM1 Multimode MT-RJ Jacks (No epoxy/No polish)

MT-RJ Patch Panel Jacks



MT-RJ Outlet Jack

SL Series Housing

ORDERING INFORMATION

			For Use With	
Description	Jack Color	SL Series Housing Color	900 m Tight-buffered Fibers	250 m Coated Fibers
MT-RJ Patch Panel Jack	Beige	–	6588880-2	6278303-2
MT-RJ Outlet Jack	Beige	Almond	6278415-1	–
		Black	6278415-2	–
		White	6278415-3	–
		Gray	6278415-4	–
		Orange	6278415-5	–
		Blue	6278415-6	–
		Red	6278415-7	–
		Yellow	6278415-8	–
		Green	6278415-9	–
		Violet	1-6278415-0	–
		Electrical Ivory	1-6278415-1	–

Multimode MT-RJ Jack Accessories (OM4, OM3, OM2, and OM1)

- Parallel dress clips:
  - 1-Port clip holds one MT-RJ jack (sold separately)
  - 2-Port clip holds two MT-RJ jacks (sold separately)
  - Allow use of MT-RJ jacks in faceplates and outlets that hold flanged optical fiber adapters
  - Can be used with HIDEAWAY and HIDEOUT outlets
- Bend limiting boots:
  - Compatible with all MT-RJ jacks
  - Comes in a package of six
  - Protects fiber transition at back of MT-RJ jack
- SL Series housing easily snap into SL series modules, mounting straps, patch panels, and faceplates
- SL series housing accepts one MT-RJ jack sold separately
- MT-RJ outlet jacks not included with any accessory listed here

Figure A

Figure B

Figure C

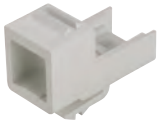


Figure D

Figure E

ORDERING INFORMATION

Description		Package Quantity	Figure	SL Series Housing Color	Part Number
Parallel Dress Clip	1-Port (Accepts 1 MT-RJ Jack)	6	A	–	1374206-1
	2-Port (Accepts 2 MT-RJ Jacks)	3	B	–	1374205-1
Bend Limiting Boot	Black	6	C	–	6374208-4
	Beige	6		–	6374208-5
SL Series Housing	1-Port (Accepts 1 MT-RJ Jack)	1	D	Almond	1374416-1
				Black	1374416-2
				White	1374416-3
				Gray	1374416-4
				Orange	1374416-5
				Blue	1374416-6
				Red	1374416-7
				Yellow	1374416-8
				Green	1374416-9
				Violet	1-1374416-0
				Electrical Ivory	1-1374416-1
				Rose	2-1374416-3
				Aqua	2-1374416-4
				Brown	2-1374416-5
				Slate	2-1374416-6

Multimode Snap-in Adapter Plates

- All snap-in adapter plates fit RMG unloaded optical fiber enclosures
- MT-RJ jack adapter plates:
  - Hold up to six (6) MT-RJ (standard or secure) jacks or pigtail jack cable assemblies
  - Accepts labeling icons
- MT-RJ plug adapter plates hold up to twelve (12) MT-RJ plugs (standard only)
- Package quantity = 1 per pack
- SL Series multimedia adapter plates accept SL series jacks and inserts

Figure A

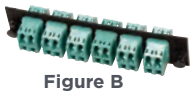


Figure B

Figure C

Figure D

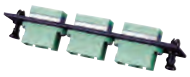


Figure E

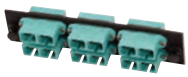


Figure F

Figure G

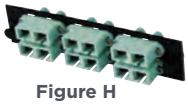


Figure H

Figure I

Figure J

Figure K

Figure L

OM3 and OM4 (50/125 µm) Multimode Snap-in Adapter Plates

ORDERING INFORMATION

Coupling Adapter	Fibers	Duplex Ports	Coupler Count	Adapter Color	Figure	Part Number
LC Duplex	12	6	6	Aqua	A	1374463-5
	24	12	12	Aqua	B	1435516-5
MT-RJ, Holds 6 Jacks	12	6	–	–	C	1278328-3
MT-RJ, 12 Plugs	24	12	–	Black	D	1435440-2
SC Simplex	6	3	3	Aqua		559517-8
SC Duplex	6	3	3	Aqua	E	559558-6
	12	6	6	Aqua	F	559596-6
SC Duplex to Dual ST	6	3	3	Aqua	G	559601-5
	12	6	6	Aqua	H	1278368-3
ST	6	3	6	Metallic	I	559557-1
	12	6	6	Beige	J	1278567-1
MPO	–	–	6	Black		1374598-1
Blank	–	–	–	–	K	559523-1
SL Series Multimedia Adapter Plate	–	–	–	–	L	1479506-1

50/125 µm OM2 Multimode Snap-in Adapter Plates

Figure A

Figure B

Figure C

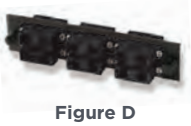


Figure D

Figure E

Figure F

Figure G

Figure H

Figure I

Figure J

Figure K

Figure L

ORDERING INFORMATION

Coupling Adapter	Fibers	Duplex Ports	Coupler Count	Adapter Color	Figure	Part Number
LC Duplex	12	6	6	Black	A	1374463-4
	24	12	12	Black	B	1435516-4
MT-RJ, Holds 6 Jacks	12	6	–	–	C	1278328-3
MT-RJ, 12 Plugs	24	12	–	Black	D	1435440-2
SC Simplex	6	3	3	Black		559517-3
SC Duplex	6	3	3	Black	E	559558-5
	12	6	6	Black	F	559596-5
SC Duplex to Dual ST	6	3	3	Black	G	559601-4
	12	6	6	Black	H	1278368-2
ST	6	3	6	Metallic	I	559557-1
	12	6	6	Beige	J	1278567-1
MPO	–	–	6	Black		1374598-1
Blank	–	–	–	–	K	559523-1
SL Series Multimedia Adapter Plate	–	–	–	–	L	1479506-1

62.5/125 µm OM1 Multimode Snap-in Adapter Plates

Figure A

Figure B

Figure C

Figure D

Figure E

Figure F

Figure G

Figure H

Figure I

Figure J

Figure K

Figure L

ORDERING INFORMATION

Coupling Adapter	Fibers	Duplex Ports	Coupler Count	Adapter Color	Figure	Part Number
LC Duplex	12	6	6	Beige	A	1374463-2
	24	12	12	Beige	B	1435516-2
MT-RJ, Holds 6 Jacks	12	6	–	–	C	1278328-3
MT-RJ, 12 Plugs	24	12	–	Beige	D	1435440-1
SC Simplex	6	3	3	Beige		559517-7
SC Duplex	6	3	3	Beige	E	559558-1
	12	6	6	Beige	F	559596-1
SC Duplex to Dual ST	6	3	3	Beige	G	559601-1
	12	6	6	Beige	H	1278368-1
ST	6	3	6	Metallic	I	559557-1
	12	6	6	Beige	J	1278567-1
MPO	–	–	6	Black		1374598-1
Blank	–	–	–	–	K	559523-1
SL Series Multimedia Adapter Plate	–	–	–	–	L	1479506-1

Singlemode Snap-in Adapter Plates

Figure A

Figure B

Figure C

Figure D

Figure E

Figure F

Figure G

Figure H

Figure I

Figure J

Figure K

Figure L

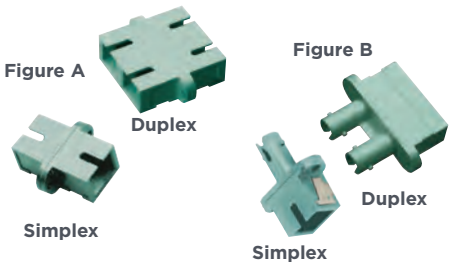
ORDERING INFORMATION

Coupling Adapter	Fibers	Duplex Ports	Coupler Count	Adapter Color	Figure	Part Number
LC Duplex	12	6	6	Blue	A	1374463-1
	24	12	12	Blue	B	1435516-1
LC Duplex, APC	12	6	6	Green		1374463-6
	24	12	12	Green		1435516-6
MT-RJ, Holds 6 Jacks	12	6	–	–	C	1278328-3
MT-RJ, 12 Plugs	24	12	–	Blue	D	1435440-3
SC Simplex	6	3	3	Blue		559517-1
SC Simplex, APC	6	3	3	Green		559517-2
SC Duplex	6	3	3	Blue	E	559558-2
	12	6	6	Blue	F	559596-2
SC Duplex, APC	6	3	3	Green		559558-7
	12	6	6	Green		559596-3
SC Duplex to Dual ST	6	3	3	Blue	G	559601-6
	12	6	6	Blue	H	1278368-5
ST	6	3	6	Metallic	I	559515-2
	12	6	6	Blue	J	1278567-2
MPO	–	–	6	Black		1374598-1
Blank	–	–	–	–	K	559523-1
SL Series Multimedia Adapter Plate	–	–	–	–	L	1479506-1

Note: APC (Angle Polish Connector) connectors are for use with other APC products.

Multimode Couplers and Adapters

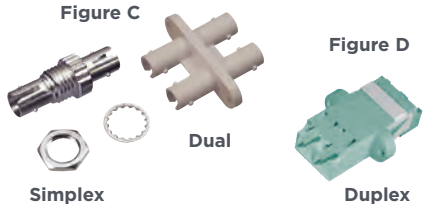
- MT-RJ couplers mate multimode or singlemode MT-RJ plugs
- Duplex coupler mates four MT-RJ plugs (4-fibers total, 2-fibers/mated pair)
- Simplex coupler mates two MT-RJ plugs (2-fibers total, 2-fibers/mated pair)
- Mounting screws are available for couplers with mounting tabs (flanged)
- FOCIS – compliant designs



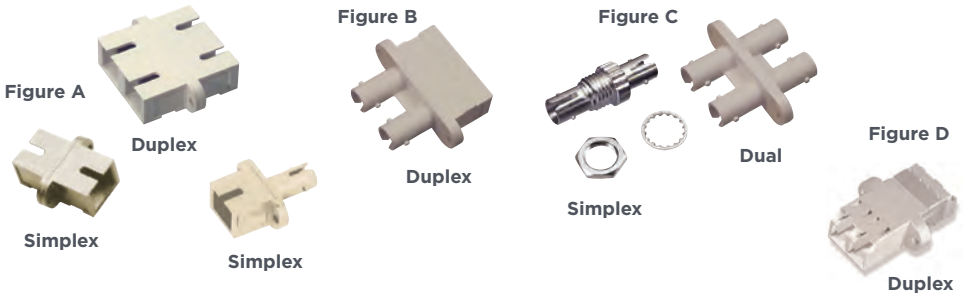
OM3 and OM4 Multimode Couplers and Adapters

ORDERING INFORMATION

Description	Color	Figure	Part Number	
			Simplex	Duplex
MT-RJ Coupler	Almond		1278017-1	6374906-1
SC Coupler	Aqua	A	2-5502632-4	2-5502776-6
SC to ST Coupling Adapter	Aqua	B	2-5502780-1	1-5503137-9
ST Coupler	Metallic/Beige	C	501381-1	504662-2
LC Coupler	Aqua	D	–	1-6457567-6



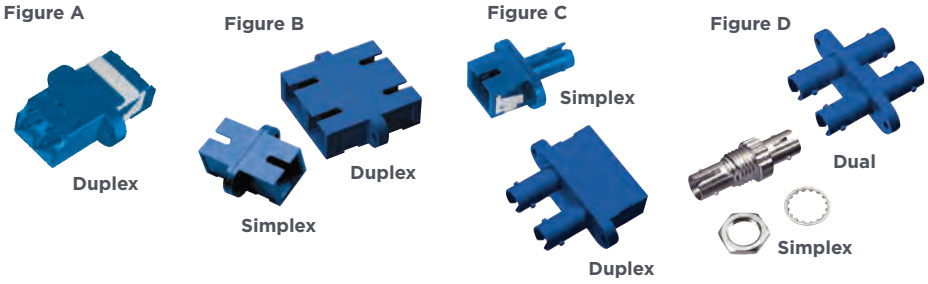
62.5/125 µm OM1 Multimode Couplers and Adapters



ORDERING INFORMATION

Description	Color	Figure	Simplex	Duplex
MT-RJ Coupler	Almond		1278017-1	6374906-1
SC Coupler	Beige	A	5504614-1	5504640-1
SC to ST Coupling Adapter	Beige	B	5502780-3	5504663-4
ST Coupler	Metallic/Beige	C	501381-1	504662-2
LC Coupler	Beige	D	–	6457567-5

Singlemode Couplers and Adapters



ORDERING INFORMATION

			Part Number		
Description	Color	Figure	Simplex	Duplex	Quadplex (Dual Duplex)
MT-RJ Coupler	Almond		1278017-1	6374906-1	–
LC Coupler	Blue	A	1457062-1	6457567-4	1695790-4
SC Coupler	Blue	B	5502632-8	1-5502776-1	–
SC to ST Coupling Adapter	Blue	C	5502780-2	5503137-5	–
ST Coupler	Metallic/Blue	D	504021-1	503273-5	–

Fiber Enclosure Comparison

High Density Equipment Panel

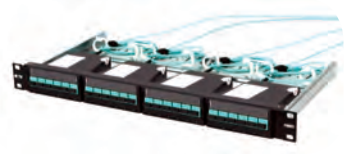
- Most advanced cable management – highest manageable density
- Interchangeable modules for full 10/40/100 migration
- MPOptimate compatible
- Managed and unmanaged

Q3000

- High feature with manageable density
- Uses blades as user interface
- Addresses termination/MPO applications in same chassis

Universal Connectivity Platform

- High versatility with excellent value
- Modular solution for both copper and fiber cassettes
- High density (96fibers in 1U)



TFP

- Medium Feature – Lower density for better connector access
- Modular solution (Unique TE footprint)
- Single chassis for all applications

RMG/AMP NETCONNECT

- Modular solution (LGX* footprint)
- Single chassis for all applications
- Simple design, economical

* LGX is a registered trademark

Fiber

Fiber Enclosures – High Density Equipment Panel (HDEP)

The High Density Equipment Panel

The High Density Equipment Panel (HDEP) is engineered to address data center needs of today and tomorrow. A true break from traditional cable management thinking, the HDEP seamlessly supports 10/40/100 GbE migration and deployment of TE's highly agile 24-Fiber MPOptimate System. With its unique `s-tray' design, the HDEP provides faster, more uniform installation, quicker Day Two moves, adds and changes, and an unprecedented balance of flexibility, simplicity and smart economics.

4RU Chassis

1RU Chassis

FEATURES

- Improved rack efficiency – Up to 144 fibers per 1RU for duplex LC connections and up to 1152 fibers per 1RU in a 24-fiber MPO format
- 10/40/100 Gigabit Ethernet compatible – support 24-fiber trunks, the fundamental building block of the 10/40/100 Gigabit Ethernet system migration
- Chassis feature a unique pivoting cable support mechanism that contains cables and assures proper bend radii through the entire travel of the management trays. Cable binding and tangling is greatly reduced relative to existing sliding tray formats
- Extended depth chassis and extensive tray travel greatly enhance the freedom of access to individual connectors, even at the rear of the chassis, and even when the chassis is mounted directly above switches or servers or at the top of a cabinet
- High Performance – Compatible with TE's low loss MPOptimate system
- Improves pathway efficiency – Compatible with 24-fiber trunks which save space relative to 12-fiber trunks

ORDERING INFORMATION

Description		Part Number
Chassis	Unmanaged 1RU chassis	N5CHU-1RU
	Unmanaged 4RU chassis	N5CHU-4RU
	Managed 1RU chassis	Q6CHM-1RU

High Density Equipment Panel (HDEP) fiber MPO-LC modules provide consolidation and branching points for high performance fiber networks.

These modules are compatible with HDEP chassis, frames and hardware and interface with a simple, yet highly engineered cable management system. MPO-LC modules are fully assembled and snap easily into new or existing support trays within the HDEP chassis.

ORDERING INFORMATION

Product Description	Part Number
Unmanaged Right Module, LC-MPO Aqua, 24 fibers (1, 24F MPO rear ports), straight fiber path, Optimate performance	N5MP-24DLMR4AP
Unmanaged Left Module, LC-MPO Aqua, 24 fibers (1, 24F MPO rear ports), straight fiber path, Optimate performance	N5MP-24DLML4AP
Unmanaged Right Module, LC-MPO Aqua, 24 fibers (1, 24F MPO rear ports), flipped fiber path, Optimate performance	N5MP-24DLMR4BP
Unmanaged Left Module, LC-MPO Aqua, 24 fibers (1, 24F MPO rear ports), flipped fiber path, Optimate performance	N5MP-24DLML4BP
Unmanaged Right Module, LC-MPO Aqua, 24 fibers (1, 24F MPO rear ports), wired 10G HD, Optimate performance	N5MP-24DLMR4FP
Unmanaged Left Module, LC-MPO Aqua, 24 fibers (1, 24F MPO rear ports), wired 10G HD, Optimate performance	N5MP-24DLML4FP
Unmanaged Right Module, LC-MPO Aqua, 24 fibers (2, 12F MPO rear ports), straight fiber path, Optimate performance	N5MP-24DLMR2AP
Unmanaged Left Module, LC-MPO Aqua, 24 fibers (2, 12F MPO rear ports), straight fiber path, Optimate performance	N5MP-24DLML2AP
Unmanaged Right Module, LC-MPO Aqua, 24 fibers (2, 12F MPO rear ports), flipped fiber path, Optimate performance	N5MP-24DLMR2BP
Unmanaged Left Module, LC-MPO Aqua, 24 fibers (2, 12F MPO rear ports), flipped fiber path, Optimate performance	N5MP-24DLML2BP
Unmanaged Right Module, LC-MPO Blue, 24 fibers (2, 12F MPO rear ports), straight fiber path, Singlemode performance	N5MP-24DLMR2AS
Unmanaged Right Module, LC-MPO Blue, 24 fibers (2, 12F MPO rear ports), flipped fiber path, Singlemode performance	N5MP-24DLMR2BS
Unmanaged Left Module, LC-MPO Blue, 24 fibers (2, 12F MPO rear ports), straight fiber path, Singlemode performance	N5MP-24DLML2AS
Unmanaged Left Module, LC-MPO Blue, 24 fibers (2, 12F MPO rear ports), flipped fiber path, Singlemode performance	N5MP-24DLML2BS

High Density Equipment Panel (HDEP) fiber adaptor modules provide a connection point for LC and MPO patch cords, hydras and trunks.

These adaptors are compatible with HDEP chassis, frames and hardware and feature a simple, yet highly engineered cable management system. Adaptor modules are fully assembled and snap easily into new or existing support trays within the HDEP chassis.

MPO Module

ORDERING INFORMATION

Product Description	Part Number
Unmanaged Adapter Pack, LC-LC Aqua, 24 fibers (12 duplex ports)	N5AP-24DLCMMS
Unmanaged Adapter Pack, LC-LC Blue, 24 fibers (12 duplex ports)	N5AP-24DLCSMU
Unmanaged Adapter Pack, LC-LC Green, 24 fibers (12 duplex ports)	N5AP-24DLCSMA
Unmanaged Adapter Pack, MPO-MPO Aqua, 192 fibers (8, 24F MPO ports)	N5AP-192MPOMMS
Unmanaged Adapter Pack, MPO-MPO Green, 192 fibers (8, 24F MPO ports)	N5AP-192MPOSMA

Fiber Enclosures – Q3000

Q3000 Series Fiber Panels are the latest innovation in the Quareo suite of products. The Q3000 Series fiber enclosure supports applications with high density fiber terminations through simplified access to individual connectors, combined with enhanced cable management features. The Q3000 series accommodates singlemode and multimode LC and MPO connectivity. Q3000 panels are compatible with the Quareo Cross-Connect Frame to provide enhanced density in an accessible yet highly-managed system.

FEATURES

- Support IEEE 802.3ae, IEEE 802.3ba, IEEE 802.3z
- Exceed ANSI/TIA-568-C.3 and ISO 11801 Edition 2 cabling system requirements
- OM3/OM4 and OS2
- 19-Inch rack mountable
- Available in 1, 2, and 4RU chassis
- 48-fiber (24 Duplex LC) LC-to-LC or LC-to-MPO blade
- 192-fiber (16 MPO Ports) MPO-to-MPO blade

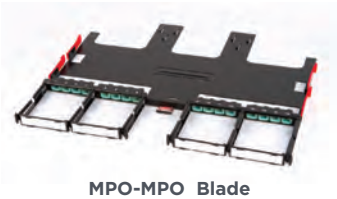
1RU

2RU

4RU

LC-LC Blade

LC-MPO Blade



MPO-MPO Blade

ORDERING INFORMATION

Product Description			Part Number
Fiber Enclosures – Q3000	Q3000 series chassis	1RU (1.75" x 19" x 15"), accommodates 2 blades	QUCH-1RU
		2RU (3.5" x 19" x 15"), accommodates 4 blades	QUCH-2RU
		4RU (7" x 19" x 15"), accommodates 8 blades	QUCH-4RU
	Front door kits	1RU	QDR-1RU
		2RU	QDR-2RU
		4RU	QDR-4RU
	Blank blade cover	For covering unused slots in Q3000 or Q4000 chassis	QBCB-HR
Q3000 Blades	LC to LC; 24 Port Duplex LC (48-fiber), LC-to-LC	OM3/OM4 Multimode LC-LC blade	QUFB-48FDLCLMMHR
		Singlemode LC-LC blade	QUFB-48FDLCLSMHR
	LC to MPO; 24 Duplex LC ports (48-fibers) distributed from 2 each 12 fiber MPO connectors	OM3/OM4 Multimode LC-MPO elite blade Multimode (OM3/OM4) Loss (<0.5 dB) @ 850 nm/1300 nm	QUFB-48FDLCMM3HR
		Singlemode ultra polish LC-MPO elite blade Singlemode Loss (<0.75 dB) @ 1310 nm/1550 nm	QUFB-48FDLCMSMHR
	MPO to MPO; 16 MPO ports with 12-fibers each	OM3/OM4 Multimode MPO-MPO elite blade	QUFB-192FMPOMMHR
		Singlemode MPO-MPO blade	QUFB-192FMPOSMHR

Universal Connectivity Platform — A Modular Approach to Infrastructure Design

TE Connectivity's Universal Connectivity Platform (UCP) provides a fully modular approach to designing data centers and telecommunications rooms. This patch panel is ideal for rapidly evolving environments because it supports both TE's plug-and-play copper and fiber solutions.

TE's UCP enables business transformation by virtue of its modularity. It is designed to accommodate all of TE's cabling media, whether copper or fiber, to support the 10, 40 and 100 Gigabit network connections in a single patch panel. By simply selecting the media, network equipment can be changed in a controlled fashion as the network demands.

Rack space is always a premium in the data center or telecommunications room, especially in existing infrastructure. The UCP is designed with this in mind, incorporating maximum flexibility for different needs and architecture. The panels can be installed in a 19 inch cabinet/rack, or installed overhead or under raised floors. By moving the panels overhead or under the floor, they can be easily shared between cabinets/racks.

Data Centers and co-location sites have undergone radical changes over the past few years and will again in the future. TE's Universal Connectivity Platform helps network managers address this change by delivering added flexibility and scalability.

FEATURES

- Multimedia Quick-Fit configurations accommodate both copper and fiber
- Compatible with MPOptimate multimode (OM3/OM4) and singlemode (OS1/OS2) fiber media
- Compatible with U/UTP, F/UTP and S/FTP copper media
- Can be installed inside a cabinet/rack, to a wire basket or under a raised floor
- Scalable to meet all applications from 100 Mbps to 100 Gbps including high-density 10 Gbps deployments

UCP Patch Panel

FEATURES

- 19" unloaded modular patch panel with 4 Quick-Fit cutouts

Description	Part Number
UCP Patch Panel 1RU Flush; includes grounding bolt and rear cable support bar	1-1671594-2
UCP Patch Panel 1RU Flush; without cable support bar	2111761-1
UCP Patch Panel 2RU Flush; without cable support bar	2111762-1
UCP Patch Panel 1RU Recessed Angled; without cable support bar	1671590-5
UCP Patch Panel 2U Recessed Angled; without cable support bar	1671590-6

UCP Drawer Style Enclosure

FEATURES

- 19" 1RU enclosure with Quick-Fit cutouts
- Mounting bracket for flush or recessed mounting

Description	Part Number
1RU Drawer style Enclosure	1933443-1

Zero RU Quick-Fit Bracket

FEATURES

- Bracket designed for copper and fiber Quick-Fit cassettes and modules
- 5" horizontal clearance required

Description	Part Number
Zero RU Quick-Fit Bracket; includes grounding bolt	1-1671548-1

Fiber

Fiber Enclosures – Universal Connectivity Platform

MRJ21 Quick-Fit Cassettes

Compatible with MRJ21 cable assemblies for superior performance.

10 GbE

1 GbE

UCP COMPATIBLE

FEATURES

- Factory terminated and tested
- Available in 1GbE and 10GbE
- High-density
  - 48 ports 1RU 1000 BASE-T
  - 32 Ports 1RU 10 GBASE-T
- Integrated bonding

Description	Part Number
MRJ21 XG Quick-Fit cassette for 10GBase-T	2153115-1
MRJ21 Quick-Fit cassette for 1000BaseT	1711970-1

STP and UTP Quick-Fit Modules

Quick-Fit Module

UCP COMPATIBLE

Blank Module

FEATURES

- Accommodates CAT 5e, 6, 6A SL jacks
- STP version has integrated bonding
- Labels included

Description	Part Number
STP Quick-Fit module	2111093-1
UTP Quick-Fit module	2111117-1
Blank Module; used to close unused cut-outs in panels	1479698-1

MPOptimate to LC 10 Gigabit Quick-Fit Cassettes

12-Fiber Trunking Solutions

LC Duplex

FEATURES

- Factory terminated and tested
- Front: 6 x LC Duplex or 6 x LC Quad
  Back: one or two 12 fiber MPO or MPOptimate connector(s)
- Available in OS2, OM3 or OM4 MPOptimate
- Port number labeling and additional label strip included
- Part numbers noted are Straight Polarity. Other polarities are available upon request

UCP COMPATIBLE

Description	Fiber Type	Fiber Count	Part Number
LC duplex	50 µm, MM, OM3	12	1671205-3
	9 µm, SM, OS2	12	1671205-4
	50 µm, MM, OM4 MPOptimate	12	1671226-5
LC quad	50 µm, MM, OM3	24	1671206-3
	9 µm, SM, OS2	24	1671206-4
	50 µm, MM, OM4 MPOptimate	24	1671227-5

MPOptimate to LC 10 Gigabit Quick-Fit Cassettes

24-Fiber Trunking Solutions

LC Quad

FEATURES

- Factory terminated and tested
- Front: 12 x LC Duplex
  Back: 1 x 24 fiber MPO connector
- Available in OM4 MPOptimate
- Port number labeling and additional label strip included

UCP COMPATIBLE

Description	Part Number
Cassette OM3 Straight A-A/B-B	2160266-3
Cassette OM3 Polarity Flipped A-B/B-A	1-2160266-3
Cassette OM4 Straight A-A/B-B	2160266-5
Cassette OM4 Polarity Flipped A-B/B-A	1-2160266-5

MPOptimate 40 Gigabit Quick-Fit Cassettes

FEATURES

- Factory terminated and tested
- Front: 6 x 8-fiber MPO connectors
  Back: 2 x 24 fiber MPO connector
- MPOptimate
- Port number labeling and additional label strip included
- Fiber path for part numbers noted is Polarity “A” or Polarity “B”

6x 40G Cassette

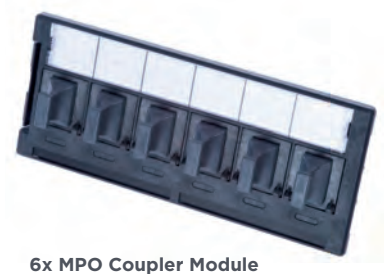
UCP COMPATIBLE

Description	Part Number
Cassette OM4 Straight A-A/B-B	2160530-5
Cassette OM4 Polarity Flipped A-B/B-A	1-2160530-5

MPO/MPOptimate Quick-Fit Module

FEATURES

- Quick-Fit modules with 6 or 12 MPO couplers
- Compatible with 10/40/100 Gbps MPO trunks and arrays
- Port number labeling and additional label strip included
- MPO coupler joins MPO pinned to non-pinned connectors



6x MPO Coupler Module

UCP COMPATIBLE

Description	Part Number
6x MPO coupler module; black	1671200-1
12x MPO coupler module	1711987-1

Quick-Fit Fiber Modules

FEATURES

- Available in LC and SC configurations
- Available in singlemode and multimode

12 Fiber LC

UCP COMPATIBLE

24 Fiber LC

Description	Fiber Type	Ferrule	Color	Part Number
12 Fiber LC	OM3/OM4	Ceramic	aqua	0-1671196-3
12 Fiber LC	SM	Ceramic	blue	0-1671196-1
24 Fiber LC	OM3/OM4	Ceramic	aqua	0-1671202-3
24 Fiber LC	SM	Ceramic	blue	0-1671202-1
12 Fiber SC	OM3/OM4	Ceramic	aqua	1671201-3
12 Fiber SC	SM	Ceramic	blue	1671201-1

Vertical Panel Mounting Brackets

FEATURES

- Fully flexible system for installing 19" panels vertically outside of the 19" area
- Available in 1RU

Description	Part Number
1RU Vertical Panel Mounting Brackets	1-1671549-1

Subfloor Panel Holder Kit

FEATURES

- Fully flexible system for installing 19" panels underneath cabinets/racks in raised floor environments
- Pedestal distance maximum 24"
- The clamping range varies from 0.6" up to 1.2"
- Pedestal can be round or square
- Available in 2RU

Description	Part Number
Subfloor Panel Holder Kit 2RU	1671189-2

Aerial Panel Holder Kit for Wire Mesh Cable Trays

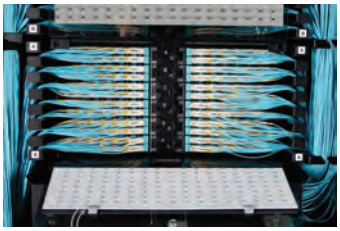
FEATURES

- Fully flexible system for installing 19" panels above cabinets/racks attached to wire mesh cable trays
- Available in 2RU

Description	Part Number
Aerial Panel Holder Kit (2RU)	1-1671603-1

Note:
For information on Copper and Fiber cable assemblies visit www.te.com/EnterpriseNetworks to view the below documents.
Fiber trunk assemblies and patch cords, see document numbers 402-1007 and 402-1008.

Fiber Enclosures – TFP Series Rack Mount Fiber Panels



The rack mount TrueNet Fiber Panel (TFP) is an integral part of TE's fiber product portfolio. The TFP fiber panels can be ordered in one, two, four and five rack unit sizes and are completely modular to configure to a variety of applications. The unique modular adapter packs incorporate an angled adapter design to allow easy access to each port and superior cable management and bend radius protection.

FEATURES

- TFP panels combine the unique features of vertical cable guides and angle-left/angle-right adapters, offering bend radius protection, intuitive routing and easy connector access
- Rear access makes field termination or splicing fast and efficient. 1RU and 2RU versions feature convenient sliding access to terminations and splicing
- Sold separately for maximum flexibility with minimum lead time, TFP adapter packs can also be pre-configured at the factory for more efficient service turn-up
- 288-position high-density termination/splice in the space of just five rack units (8.75-inch)
- Panels are equipped with adjustable mounting brackets to provide either 19- or 23-inch rack or cabinet mounting (EIA or WECO) as well as 4- or 5-inch recess mounting
- Field-installable vertical cable guides on either side of the panel provide bend radius protection and management of fibers exiting the panel

APPLICATIONS AND BENEFITS

- Best suited for rack or cabinet mounting in horizontal and equipment distribution areas
- Modularity, functionality and density make the TFP ideal for mounting in close proximity to servers, switches, routers and SANs

TFP Empty Chassis

ORDERING INFORMATION

Termination only rack or cabinet mount, Black	Dimensions	Part Number
1RU empty panel, black; accommodates 1 angle LEFT and 1 angle RIGHT adapter packs; T-handle latch close	1.75″	TFP-1TT00-000B
2RU empty panel, black; accommodates 2 angle LEFT and 2 angle RIGHT adapter packs; T-handle latch close	3.50″	TFP-2TT00-000B
4RU empty panel, black; accommodates 4 angle LEFT and 4 angle RIGHT adapter packs; T-handle latch close	7.00″	TFP-4TT00-000B
5RU empty panel, black; accommodates 6 angle LEFT and 6 angle RIGHT adapter packs; T-handle latch close	8.75″	TFP-5TT00-000B

Accessories

Heat Shrink Fusion Splice Tray (Splice Tray Capacity: 48 fibers)	FST-HS-48
Velcro Kit for Splice Tray	TFP-VELSTP
Blank plates	TFP-00AP00

TFP Series Rack Mount Fiber Panels

GENERAL SPECIFICATIONS

Maximum Density	1RU	2RU	4RU	5R
LC Connector:	48	96	192	288
SC Style Connector:	24	48	96	144
Adapter Pack Configuration:	2 modular adapter packs: 1 Angle right/ 1 Angle left	4 modular adapter packs: 2 Angle right/ 2 Angle left	8 modular adapter packs: 4 Angle right/ 4 Angle left	12 modular adapter packs: 6 Angle right/ 6 Angle left

TFP Product Overview

Recommended Applications	Multi-purpose high-density modular solution ideal for cabinet or rack mount applications near servers, switches, routers and SANS
Description	Termination, termination/splice
Chassis sizes in rack units	1, 2, 4, and 5
Termination only capacity using: Simplex adapters Duplex adapters Small form factor (LC)	 24, 48, 96, 144 24, 48, 96, 144 48, 96, 192, 288
Flexibility/ablity to grow	Ideal for growth
Interconnect	Yes
Cross-connect	Yes
Accommodates on-frame splicing	Yes. Built-in
Rear access	Yes
All-front-access	No
Customer premises application	Ideal
19" mounting	Yes
23" mounting	Yes
Cabinet mount	Yes
Wall mount	No
Mix equipment with fiber product?	Ideal
Vertical cable guide	Ships with every panel
Features at a Glance	Angled left/right adapter packs, highest density with maximum cable management features

SPECIFICATIONS

Storage/operating temperature: 40 to 85° C (-40° to 185° F)

Approximate weight (empty panel)

1RU model: 8.25 lbs

2RU model: 10.25 lbs

4RU model: 15.91 lbs

5RU model: 15.86 lbs

TFP Series Standard Adapter Packs

The TFP series offers a variety of standard modular adapter packs to accommodate most applications. The modular design is user-friendly and offers maximum flexibility to the end-user (for other adapter offerings or adapter packs loaded with pigtails, see the custom configuration section).

The TFP modular adapter packs can only be used with the TFP series panels. They are not interchangeable with RMG, WMG, FL1000 or FL2000 panels.

TFP Fiber Panel

TFP Adapter Pack

ORDERING INFORMATION

Description	Color	Pack Orientation	Part Number
OM1/OM2 Multimode Adapter Only Packs			
SC duplex adapters, 6 adapters or 12 fiber ports per adapter pack	Beige	Left	TFP-12APLC3
		Right	TFP-12APRC3
LC adapters, 12 adapters or 24 fiber ports per adapter pack		Left	TFP-24APLQ1
		Right	TFP-24APRQ1
OM3/OM4 Multimode Adapter Only Packs			
SC duplex adapters, 6 adapters or 12 fiber ports per adapter pack[1]	Aqua	Left	TFP-12APLC4
		Right	TFP-12APRC4
LC adapters, 12 adapters or 24 fiber ports per adapter pack[1]		Left	TFP-24APLQ2
		Right	TFP-24APRQ2
Singlemode Adapter Only Packs			
SC duplex adapters, 6 adapters or 12 fiber ports per adapter pack	Blue	Left	TFP-12APLC8
		Right	TFP-12APRC8
LC adapters, 12 adapters or 24 fiber ports per adapter pack		Left	TFP-24APLQ5
		Right	TFP-24APRQ5
OM3 Multimode Adapter Packs with Stranded Pigtails			
SC duplex adapters, 6 adapters or 12 fiber ports per adapter pack	Aqua	Left	TFP-12APLC4DE3
		Right	TFP-12APRC4DE3
LC adapters, 12 adapters or 24 fiber ports per adapter pack		Left	TFP-24APLQ2DE3
		Right	TFP-24APRQ2DE3
OM4 Multimode Adapter Packs with Stranded Pigtails			
SC duplex adapters, 6 adapters or 12 fiber ports per adapter pack	Aqua	Left	TFP-12APLC4FE3
		Right	TFP-12APRC4FE3
LC adapters, 12 adapters or 24 fiber ports per adapter pack		Left	TFP-24APLQ2FE3
		Right	TFP-24APRQ2FE3
Singlemode Adapter Packs with Stranded Pigtails			
SC UPC duplex adapters, 6 adapters or 12 fiber ports per adapter pack	Blue	Left	TFP-12APLC8SB3
		Right	TFP-12APRC8SB3
LC UPC adapters, 12 adapters or 24 fiber ports per adapter pack		Left	TFP-24APLQ5SB3
		Right	TFP-24APRQ5SB3

[1] TE Connectivity recommends the use of aqua colored adapters with laser-optimized multimode fiber for 10 Gigabit applications for circuit identification.

TFP Custom Adapter and Preterminated Adapter Packs

TE Connectivity's TFP modular adapter packs are available to be shipped from the factory with preterminated 3 meter pigtails or in non-standard ST or SC adapter only configurations. These custom configurations can simplify the ordering process and reduce installation time and cost for the end-user. Please note, these products are non-standard or custom configurations based on the end-user's needs.

Part Number
TFP - __ AP __ __ __ __ __

Number of Fiber Parts

12	12 fiber ports: 6 LC adapters; 6 SC duplex adapters; 12 ST adapters
24	24 fiber ports: 12 LC adapters

Adapter Pack Orientation

L	Left Adapter Pack
R	Right Adapter Pack

Adapter Style

Multimode Connectors	
C3	SC duplex (beige) with phosphorus/bronze
C4	SC duplex (aqua) with zirconia sleeve
Q1	LC (beige) with phosphorus/bronze
Q2	LC (aqua) with zirconia sleeve
T1	ST with phosphorus/bronze sleeve
Singlemode Connectors	
C8	SC duplex (blue) with zirconia sleeve
A1	SC duplex (green) angled polished (APC) with zirconia sleeve
Q5	LC (blue) with zirconia sleeve
T2	ST with phosphorus/bronze sleeve

Pigtail Length

Leave Blank	Adapters only
3	3 meter pigtails[1]

Pigtail Type

Leave Blank	Adapters only
B	Singlemode stranded
E	Multimode stranded

Fiber Size

Leave Blank	Adapters only
C	Multimode 50/125
D	Multimode 50/125 ultra (laser optimized to 300 meters)
F	OM4 - 50/125 LOMMF 550 m
S	Singlemode

[1]Note: Adapter packs with pigtails come automatically as a left/right pair. This is to ensure the color order scheme is correct on both the angled left and angled right sides. Please use the configurator to select the correct adapter pack style and count; a left and right version will be shipped.

TFP Pre-configured Termination/Splice Fiber Panels

TE Connectivity's TFP series fiber panels are available to be shipped with factory installed adapter packs and/or preterminated pigtail assemblies which simplifies the ordering process and reduces installation and costs. These products are non-standard or custom configurations based on the end-user's needs.

Part Number

TFP - __ __ __ __ - __ __ __ __

Panel Size

1T	2RU (1.75")	Accommodates 2 adapter packs; quarter turn latch close
2T	2RU (3.50")	Accommodates 4 adapter packs; quarter turn latch close
5L	5RU (8.75")	Accommodates 12 adapter packs; key-lock close
4T	4RU (7.00")	Accommodates 8 adapter packs; quarter turn latch close
5T	5RU (8.75")	Accommodates 12 adapter packs; T-handle latch close

Panel/Pigtail Type

A	Termination only with adapter packs, no pigtails
P	Termination/Splice with adapter packs with singlemode stranded pigtails
B	Termination/Splice with adapter packs with 50/125 multimode stranded pigtails
D	Termination/Splice with adapter packs with 50/125 multimode stranded ultra pigtails (laser optimized to 300 meters)
E	Termination/Splice with adapter packs with 62.5/125 multimode stranded pigtails

Panel Color

B	Black

Splice Deck Type

0	None
1	Heat shrink fusion

Loaded Adapter Packs

01	1 adapter pack loaded
02	2 adapter packs loaded
03	3 adapter packs loaded
04	4 adapter packs loaded
06	6 adapter packs loaded
08	8 adapter packs loaded
12	12 adapter packs loaded

Connector Style

Multimode Connectors	
C3	SC duplex (beige) with phosphorus/bronze sleeve
C4	SC duplex (aqua) with zirconia sleeve
Q1	LC (beige) with phosphorus/bronze sleeve
Q2	LC (aqua) with zirconia sleeve
T1	ST with phosphorus/bronze sleeve
Singlemode Connectors	
C8	SC duplex (blue) with zirconia sleeve
A1	SC duplex (green) angle polished (APC) with zirconia sleeve
Q5	LC (blue) with zirconia sleeve
T2	ST with phosphorus/bronze sleeve

TFP Plug-and-Play Cassettes

TE's TrueNet Fiber Panels (TFP) combine the unique features of vertical cable guides and our patented angle-left/angle-right adapters, which offer bend radius protection, intuitive routing and easy connector access. Our TFP series can be ordered in one, two, four or five rack-unit sizes to fit your unique needs. Designed for rack or cabinet mounting in the horizontal or equipment distribution area, the TFP's modularity, functionality and density make them ideal for mounting in close proximity to servers, switches, routers and SANs.

The TFP's functionality can be extended with its plug-and-play angled cassettes, which add up to 24-fiber terminations each for jumper management in SANs-rich environments. These cassettes snap into place effortlessly; and even come from the factory prelabeled with simple installation instructions.

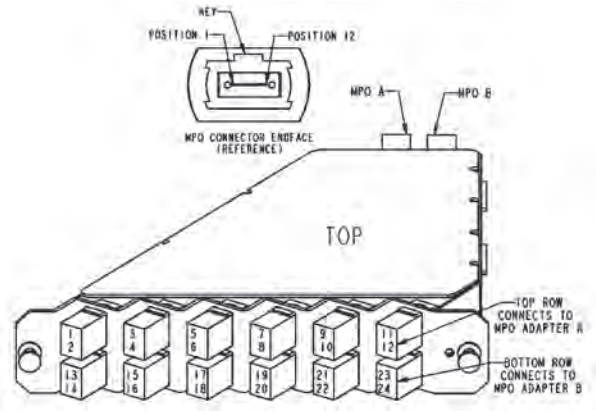
FEATURES

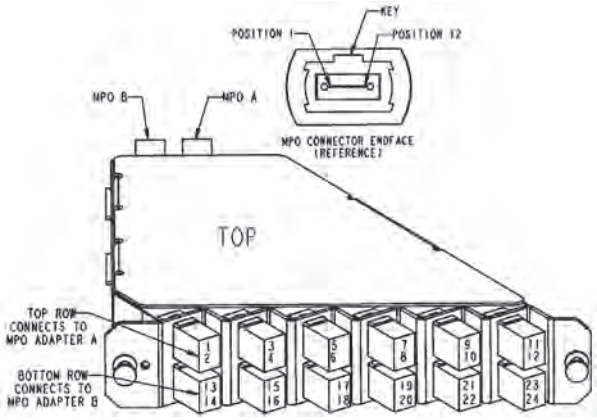
- Eliminates the need for on-site fiber terminations, which means rapid deployments
- Incorporates angle-left/angle-right adapters to ensure proper bend radius
- Uses the same 1, 2, 4, and 5 rack unit standard TFP chassis, which simplifies ordering

ORDERING INFORMATION

Description		Part Number
Termination only rack or cabinet mount panel, black		
1RU empty panel, black; accommodates 2 plug-and-play cassettes; T-handle latch close		TFP-1TT00-000B
2RU empty panel, black; accommodates 4 plug-and-play cassettes; T-handle latch close		TFP-2TT00-000B
4RU Termination only empty chassis, accommodates 8 TFP modular adapter packs; black		TFP-4TT00-000B
5RU empty panel, black: accommodates 12 plug-and-play cassettes; T-handle latch close		TFP-5TT00-000B
Plug-and-Play Cassettes		
OM3 - 50/125 LOMMF 300 m		
12-fiber cassettes; 6 LC (aqua) to 1 MPO adapter	Angle **LEFT** cassette	TFP-12MPLDQ2
	Angle **RIGHT** cassette	TFP-12MPRDQ2
24-fiber cassettes; 12 LC (aqua) to 2 MPO adapters	Angle **LEFT** cassette	TFP-24MPLDQ2
	Angle **RIGHT** cassette	TFP-24MPRDQ2
OM4- 50/125 LOMMF 550 m		
12-fiber cassettes; 6 LC (aqua) to 1 MPO adapter	Angle **LEFT** cassette	TFP-12MPLFQ2
	Angle **RIGHT** cassette	TFP-12MPRFQ2
24-fiber cassettes; 12 LC (aqua) to 2 MPO adapters	Angle **LEFT** cassette	TFP-24MPLFQ2
	Angle **RIGHT** cassette	TFP-24MPRFQ2
Singlemode		
12-fiber cassettes; 6 LCUPC to 1 MPO adapter	Angle **LEFT** cassette	TFP-12MPLSQ5
	Angle **RIGHT** cassette	TFP-12MPRSQ5
24-fiber cassettes; 12 LCUPC to 2 MPO adapters	Angle **LEFT** cassette	TFP-24MPLSQ5
	Angle **RIGHT** cassette	TFP-24MPRSQ5

TFP Plug-and-Play Cassettes





Angle Left Polarity/Wiring Scheme

MPO – Fiber Position	LC Connector	Fiber Color
MPO-1	LC-1 and LC-13	Blue
MPO-2	LC-2 and LC-14	Orange
MPO-3	LC-3 and LC-15	Green
MPO-4	LC-4 and LC-16	Brown
MPO-5	LC-5 and LC-17	Slate
MPO-6	LC-6 and LC-18	White
MPO-7	LC-7 and LC-19	Red
MPO-8	LC-8 and LC-20	Black
MPO-9	LC-9 and LC-21	Yellow
MPO-10	LC-10 and LC-22	Violet
MPO-11	LC-11 and LC-23	Rose
MPO-12	LC-12 and LC-24	Aqua

Angle Right Polarity/Wiring Scheme

MPO – Fiber Position	LC Connector	Fiber Color
MPO-1	LC-2 and LC-14	Blue
MPO-2	LC-1 and LC-13	Orange
MPO-3	LC-4 and LC-16	Green
MPO-4	LC-3 and LC-15	Brown
MPO-5	LC-6 and LC-18	Slate
MPO-6	LC-5 and LC-17	White
MPO-7	LC-8 and LC-20	Red
MPO-8	LC-7 and LC-19	Black
MPO-9	LC-10 and LC-22	Yellow
MPO-10	LC-9 and LC-21	Violet
MPO-11	LC-12 and LC-24	Rose
MPO-12	LC-11 and LC-23	Aqua

Panel Configurations

SPECIFICATION

TFP series chassis utilize modular adapter packs which are unique to either the right or left position of the chassis. The left/right position must be specified to ensure proper adapter orientation and color order in the backplane. Information below illustrates the various configurations for the three TFP chassis.

1RU Chassis

MPL	MPR

2RU Chassis

MPL	MPR
MPL	MPR

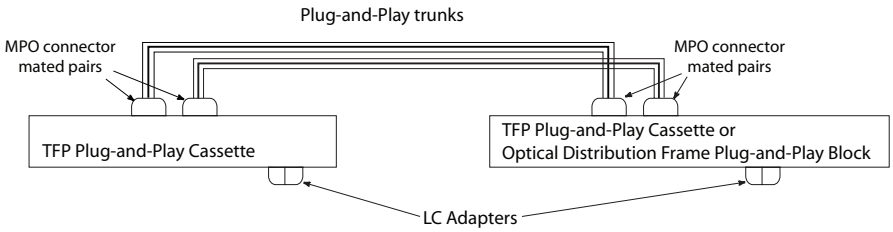
4RU Chassis

MPL	MPR
MPL	MPR
MPL	MPR
MPL	MPR

5 RU Chassis

MPL	MPR
MPL	MPR
MPL	MPR
MPL	MPR
MPL	MPR
MPL	MPR

MPL = angle left plug-and-play cassette
MPR = angle right plug-and-play cassette


Plug-and-Play trunks
MPO connector mated pairs
MPO connector mated pairs
TFP Plug-and-Play Cassette
TFP Plug-and-Play Cassette or Optical Distribution Frame Plug-and-Play Block
LC Adapters

OPTICAL SPECIFICATIONS

MODULE LOSS (MEASURED THROUGH MPO MATED PAIR TO LC ADAPTER):	850 NM	1310 NM
INSERTION LOSS:		
Maximum:	0.5 dB	0.55 dB
Typical:	0.25 dB	0.25 dB
RETURN LOSS:		
Maximum:	—	-55 dB
TRUNK LOSS (PER METER):		
Maximum:	.0035 dB	.001 dB
CHANNEL/LINK LOSS with 31 m trunk (100') as in figure above:		
Maximum:	1.1085 dB	1.131 dB
Typical:	0.6085 dB	0.531 dB

ENVIRONMENTAL CHARACTERISTICS

Storage Temperature:	-40° to 70° C	(-40° to 158° F)
Operating Temperature:	0° to 70° C	(32° to 158° F)
Installation Temperature:	0° to 70° C	(32° to 158° F)

TFP MPO Pack

TE introduces an MPO adapter pack for the TFP series fiber panel enclosures. This unique adapter pack contains 6 MPO adapters to terminate 6 (12 fiber) MPO trunks in each one. Due to their high density, the MPO adapter packs are only available for the 1 and 2RU TFP chassis. With the use of these adapter packs, the 1RU will hold 144 fiber terminations, and the 2RU will hold 288 terminations.

The TFP MPO adapter pack is ideally suited for applications with high-density switches, where the additional loss of the MPO cassette is not desired. Either the microcable trunks or high count plug-and-play trunks can be terminated in the back of the adapter pack and a plug-and-play array cable can be terminated in the front of the adapter pack.

FEATURES

- Provides higher density in 1, 2RU TFP chassis by terminating 12 fibers in each adapter
- Limits insertion loss for loss sensitive optical budgets
- Unique angle right/angle left design allows for optimal management of the array cables off the front of the panel

ORDERING INFORMATION

Description	Part Number
Termination Only Rack Mount Panel	
1RU empty panel, black; accommodates 2 modular adapter packs; T-handle latch close	TFP-1TT00-000B
2RU empty panel, black; accommodates 24 modular adapter packs; T-handle latch close	TFP-2TT00-000B
MPO adapter pack	
Contains 6 MPO adapters; can be installed in either left or right position	TFP-72AP0MP
Cable Clamp	
For use with 1/2RU chassis with high fiber count trunk applications	TFP-ACC002

Fiber Enclosures – RMG/AMP NETCONNECT Series Fiber Enclosures

TE introduces the RMG/AMP NETCONNECT series of rack mount fiber enclosures as an integral part of the TE's product portfolio. The RMG/AMP NETCONNECT series fiber enclosure provides rugged and durable protection for patching or splicing of fiber cables. Especially designed to be user friendly, the slide-out design and removable front and rear panels provide convenient access points.

TE's RMG/AMP NETCONNECT series offers a cost effective and high-density rack mount fiber enclosure in one, two and four rack unit sizes. Its modular design and flexible configurations make it very user friendly and easy to install.

FEATURES

- 1RU and 2RU units contain sliding and removable front and rear access panels, providing convenient access points
- Designed for 48.26 cm (19 inch) EIA rack or cabinet environment; optional brackets to accommodate 58.42 cm (23 inch) rack or cabinet mounting
- Density: up to 72 terminations in 1RU
- Low profile design with higher density for space limited applications
- User friendly design utilizing industry standard LSX/LGX modular adapter packs
- Side and rear cable entry points on back of panel supports a wide range of deployment applications

RMG/AMP NETCONNECT Empty Panels

ORDERING INFORMATION

Description	Panel Height	Part Number
Rack or Cabinet Mount Panel, black		
1RU empty panel; accommodates 3 modular adapter packs; black	4.45 cm (1.75")	RMG-1000-000B
2RU empty panel; accommodates 6 modular adapter packs; black	8.89 cm (3.50")	RMG-2000-000B
4RU empty panel; accommodates 12 adapter packs; also includes cable management bracket and cable clamp; black	17.78 cm (7.00")	RMG-4000-000B
Accessories		
Cable Clamp Kit (for 1RU and 2RU)		RMG-ACC001
Blank Plates		RMG-00ADP00
Splice Tray		
Heat shrink fusion (Splice Tray Capacity: 24 fibers)		FST-DV-HS
Mechanical (Splice Tray Capacity: 24 fibers)		FST-D-MT
Extender Brackets; 48.26 cm (19" - 23")		
1RU		EB-17B
2RU		EB-35B
Q-Frame 4RU Mounting Bracket		RMG-ACCQBRKT4RU

RMG/AMP NETCONNECT Product Overview

Recommended Applications	Multi-purpose high-density modular solution ideal for telecommunications closets or to terminate incoming fiber trunks
Description	Termination, termination/splice
Chassis sizes (in rack units)	1, 2, and 4
Termination only capacity using: Simplex adapters Duplex adapters Small form factor (LC)	 18, 36, 72 36, 72, 144 (includes standard LC) 72, 144, 288 (using quad LC)
Flexibility/ablity to grow	Ideal for growth
Interconnect	Yes
Cross-connect	No
Accommodates on-frame splicing	Yes. Built-in
Rear access	Yes
All-front-access	Yes
Customer premises application	Ideal
19" mounting	Yes
23" mounting	Yes, with separate extender bracket
Cabinet mount	Yes
Wall mount	No
Mix equipment with fiber product?	Ideal
Vertical cable guide	No
Features at a Glance	Limited cable management, high density with features and price comparable to traditional LGX style panels.

RMG/AMP NETCONNECT SPECIFICATIONS

Storage/operating temperature: -40° C to 85° C (-40° F to 185° F)
Approximate weight (empty panel)
1RU model: 5.44 Kg (12 lbs)
2RU model: 5.90 Kg (13 lbs)
4RU model: 6.80 Kg (15 lbs)
Configuration options and capacity
Termination only
1RU maximum density[1]: 72 terminations
2RU maximum density[1]: 144 terminations
4RU maximum density[1]: 288 terminations
Termination/splice
1RU maximum density: 36 terminations
2RU maximum density: 72 terminations
4RU maximum density: 144 terminations

[1]Maximum density achieved using quad LC connectors.

RMG/AMP NETCONNECT Maximum Capacity by Adapter Style and Chassis Height

TERMINATION ONLY APPLICATION

Chassis Height (in Rack Units)/ Application	Maximum Number of Fiber Terminations in Chassis	Maximum Number of Adapter Packs per Chassis	Number of Fiber Terminations per Adapter Pack	Adapter Style
1	18	3	6	Simplex SC, ST
1	36	3	12	Duplex SC, standard LC,
1	72	3	24	Quad LC
2	36	6	6	Simplex SC, ST
2	72	6	12	Duplex SC, standard LC,
2	144	6	24	Quad LC
4	72	12	6	Simplex SC, ST
4	144	12	12	Duplex SC, standard LC,
4	288	12	24	Quad LC

TERMINATION/SPLICE APPLICATION

Chassis Height (in Rack Units)/ Application	Maximum Number of Fiber Terminations in Chassis	Maximum Number of Adapter Packs per Chassis	Number of Fiber Terminations per Adapter Pack	Adapter Style
1	18	3	6	Simplex SC, ST
1	36	3	12	Duplex SC, standard LC,
1	48	2	24	Quad LC
2	36	6	6	Simplex SC, ST
2	72	6	12	Duplex SC, standard LC,
2	96	4	24	Quad LC
4	72	12	6	Simplex SC, ST
4	144	12	12	Duplex SC, standard LC,
4	144	12	24	Quad LC

Unloaded Rack Mount Patch Enclosures

Snap-in adapter plates or MPO cassettes sold separately

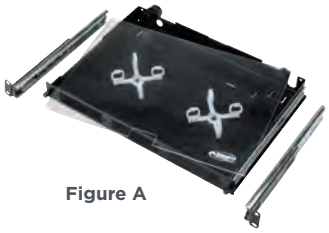


Figure A

1U enclosure 1657014 features:

- Heavy duty, smooth operating, slide mounting brackets
- Clear, removable top cover
- Flush mounting
- Holds 2 splice trays (sold separately) P/N: 1639192-1 (package of two)
- Fits standard TIA 19-inch racks

2U, 3U and 4U Enclosures feature:

- Removable front and rear covers for easy access and installation
- Front and rear fiber/cable management rings
- Edge guard on front cable entries for cable assembly protection
- Forward, flush or recessed mounting
- Fits standard TIA 19" and 23" racks
- Standard Cable Enclosure includes cable strain relief
- Enclosures shown loaded for reference only

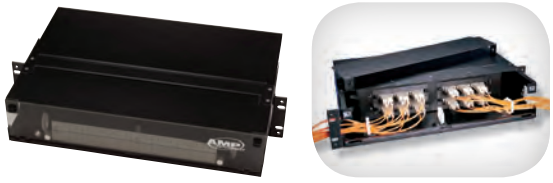


Figure B

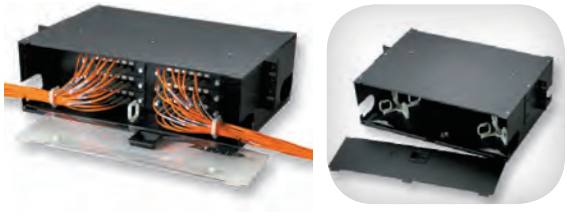


Figure C

Figure D

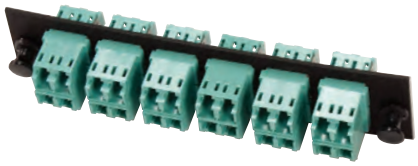
ORDERING INFORMATION

Height	Compatible Racks	Capacity		Recommended Cable Types	Figure	Part Number
		Adapter Plates	Cassettes			
1U (1.75")	19"	3	3	Standard	A	1-1657014-7
2U (3.50")	19" or 23"	4	4	Standard	B	559542-2
3U (5.25")	19" or 23"	8	8	Standard	C	559614-2
4U (7.00")	19" or 23"	12	12	Standard	D	559552-2

Unloaded Rack Mount Patch Enclosure Fiber Densities

Enclosure	Fully Loaded Density	6-Fiber Adapter Plates	12-Fiber Adapter Plates or MPO Cassettes	24-Fiber Adapter Plates or MPO Cassettes
1U Enclosures	Fiber Density	18	36	72
	Duplex Port Density	9	18	36
2U Enclosures	Fiber Density	24	48	96
	Duplex Port Density	12	24	48
3U Enclosures	Fiber Density	48	96	192
	Duplex Port Density	24	48	96
4U Enclosures	Fiber Density	72	144	288
	Duplex Port Density	36	72	144

RMG/AMP NETCONNECT Adapter Packs



ORDERING INFORMATION

Description	Equivalent To Part Number	Part Number
OM1/OM2 Multimode adapter only packs		
LC adapters, beige color 12 duplex adapters or 24 fiber per adapter pack	RMG-24ADPQ3	1435516-2
LC adapters, beige color 6 adapters or 12 fiber per adapter pack	RMG-12ADPQ1	1374463-2
SC duplex adapters, beige color 6 adapters or 12 fiber per adapter pack	RMG-12ADPC3	559596-1
SC adapters, beige color 6 adapters or 6 fiber ports per adapter pack	RMG-06ADPC1	559558-1
ST adapters 6 adapters or 6 fiber ports per adapter pack	RMG-06ADPT1	559557-1
OM3/OM4 multimode adapter only packs[1]		
LC adapters, aqua color 12 duplex adapters or 24 fiber per adapter pack	RMG-24ADPQ4	1435516-5
LC adapters, aqua color 6 adapters or 12 fiber per adapter pack	RMG-12ADPQ2	1374463-5
SC duplex adapters, aqua color 6 adapters or 12 fiber per adapter pack	RMG-12ADPC4	559596-6
SC adapters, aqua color 6 adapters or 6 fiber ports per adapter pack	RMG-06ADPC2	559558-6
Singlemode (UPC) adapter only packs		
LC UPC adapters, blue color 12 duplex adapters or 24 fiber per adapter pack	RMG-24ADPQ8	1435516-1
LC UPC adapters, blue color 6 adapters or 12 fiber per adapter pack	RMG-12ADPQ5	1374463-1
SC UPC duplex adapters, blue color 6 adapters or 12 fiber per adapter pack	RMG-12ADPC8	559596-2
SC UPC adapters, blue color 6 adapters or 6 fiber ports per adapter pack	RMG-06ADPC7	559558-2
ST UPC adapters 6 adapters or 6 fiber ports per adapter pack	RMG-06ADPT2	559515-2

[1] TE recommends the use of aqua colored adapters with laser-optimized multimode fiber for 10 Gigabit applications for circuit identification.

Custom Modular Adapter Packs

TE's RMG/AMP NETCONNECT modular adapter pack assemblies can be used in any of the RMG/AMP NETCONNECT series fiber enclosures in a variety of connector styles and with or without preterminated 3 m (9.84') pigtails. Its modular design is user friendly and easy to install. Use the following matrix to configure the correct catalog number for the application. If the resulting catalog number is not on the standard list, the product is considered custom and may have longer lead times.

FEATURES

- Can be ordered with all standard types of duplex multimode and singlemode adapters
- Available with preterminated 3 m (9.84') pigtails to reduce installation time and cost
- One end of pigtail terminated to chosen connector style and installed into adapter pack plug-in adapters

Part Number
RMG-__ ADP__ __ __ __

Number of Adapters

12	6 duplex adapters
24	6 quad adapters

Connector Style

Multimode Connectors	
C3	SC duplex
C4	SC duplex (aqua)[2]
Q1	LC[1]
Q2	LC (aqua)[1, 2]
Q3	Quad LC
Q4	Quad LC (aqua)[2]
Singlemode Connectors	
C8	SC UPC duplex
Q5	LC UPC[1]
Q8	LC UPC quad

Pigtail Length

LEAVE BLANK	Adapters only
03	3 meter pigtails

Pigtail Type

LEAVE BLANK	Adapters only
B	Singlemode stranded
E	Multimode stranded

Fiber Size

LEAVE BLANK	Adapters only
D	OM3 – 50/125 LOMMF 300 m
F	OM4 - 50/125 LOMMF 550 m
S	Singlemode

[1] LC adapters terminate two fibers at each adapter and should be considered duplex adapters in this ordering scheme
[2] TE recommends the use of aqua colored adapters with laser optimized multimode fiber applications for 10 Gigabit circuit identification.

RMG/AMP NETCONNECT Plug-and-Play Cassettes*

LC Duplex, 24-fiber
MPO Cassette

ORDERING INFORMATION

Description	Fiber Type	Fiber Count	Polarity	Equivalent To	Part Number
LC	OM1	12	Straight		1938059-1
			Flipped		1918781-1
	OM1	24	Straight		1938970-1
			Flipped		1918782-1
	OM2	12	Straight		1938057-1
			Flipped		1918779-1
	OM2	24	Straight		1938968-1
			Flipped		1918780-1
	OM3	12	Straight	RMG-12MPODQ4	1938058-1
			Flipped		1918783-1
	OM3	24	Straight	RMG-24MPODQ4	1938969-1
			Flipped		1918784-1
	OM4	12	Straight	RMG-12MPOFQ4	2193006-1
			Flipped		1553448-1
	OM4	24	Straight	RMG-24MPOFQ4	2193236-1
			Flipped		1553449-1
	SM	12	Straight	RMG-12MPOSQ8	1938060-1
			Flipped		1938056-1
	SM	24	Straight	RMG-24MPOSQ8	1938971-1
			Flipped		1918786-1
SC	OM1	12	Straight		6435180-1
			Flipped		6435180-2
	OM2		Straight		6435181-1
			Flipped		6435181-2
	OM3		Straight		6754333-1
			Flipped		6754333-2
	SM		Straight		6435069-1
			Flipped		6435069-2
ST	OM1	12	Straight		6278418-1
			Flipped		6278418-2
	OM2		Straight		6435067-1
			Flipped		6435067-2
MPOptimate Performance; (Max Insertion Loss of each cassette is .35dB when tested at 850nm)					
LC	OM3	12	Straight		1920753-1
			Flipped		1-1920753-1
	OM3	24	Straight		1920698-1
			Flipped		1-1920698-1

*Note:
Cassettes come in various options of: Fiber count – 12 or 24 fibers
Fiber Types – OM1, OM2, OM3, OM4, SM
Polarity – straight or flipped
Front-facing connector – LC, SC or ST

See drawings for specifics of any particular part number at: www.te.com/Enterprise

Wall Mount Patch Enclosures

- Accept snap-in adapter plates or MPO cassettes as listed (plates and cassettes sold separately)
- Top and bottom cable entries feature integral rubber cable grommets
- Reversible cable strain relief bracket
- Internal cable management
- Fiber loop storage and management
- Recessed, easy-to-use door latches
- Designed for indoor use
- Enclosure 1278323:
  - Designed for use in protected areas
  - Allows access to adapter ports even when door closed
  - Optional lock package for added security
  - Nominal dimensions: 8" (20 cm) H x 4" (10 cm) D x 8" (20 cm) W
- Enclosure 559561:
  - Optional lock package for added security
  - Nominal dimensions: 8" (20 cm) H x 4" (10 cm) D x 8" (20 cm) W
- Enclosure 1435128:
  - MPO Cassettes in top two slots only
  - Integral hasp for use with off-the-shelf padlocks
  - Nominal dimensions: 12" (30.5 cm) H x 3" (7.6 cm) D x 12" (30.5 cm) W
- Enclosure 1278755:
  - Reversible cable strain relief bracket
  - Can house one splice holder (1374526)
  - Optional lock package for added security
  - Knockout ports for cable glands or grommets
  - Nominal dimensions: 16.5" (40 cm) H x 14" (35.5 cm) D x 5" (13 cm) W
- Splice tray holder 1374526:
  - Holds up to four splice trays
  - Can mix and match splice trays
  - Splice trays hold up to 12 splices
  - Black anodized aluminum construction for durability and improved fiber visibility
  - Each splice tray includes clear plastic cover, end caps for fiber retention, and appropriate splice holders
- Enclosures shown loaded for reference only

Figure A

Figure B

Figure C

Figure D

Figure E

Figure F

ORDERING INFORMATION

Description	Adapter Plate/Cassette Capacity	Number of Doors		Figure	Part Number
Wall Mount Patch Enclosures	2	1	No Optional Components	A	1278323-2
	2	2	No Optional Components	B	559560-2
	4/2	1	No Optional Components	C	1435128-1
	4	2	No Optional Components	D	559561-2
	6/–	2	with Cable Glands, Cable Grommets and one Splice Tray Holder (1374526)	E	1278755-4
Optional Lock (For Use With 1278323, 559560, 559561 and 1278755)					559501-2
Replacement Cable Grommets (For Use With 1278323, 559560, 559561 and 1278755)					559496-2
Splice Tray Holder (for use with 1278755)				F	1374526-1

Wall Mount Patch Enclosures Fiber Densities

Enclosure	Fully Loaded Density	6-Fiber Adapter Plates	12-Fiber Adapter Plates/MPO Cassettes	24-Fiber Adapter Plates/MPO Cassettes
1278323	Fiber Density	12	24	48
	Duplex Port Density	6	12	24
559560	Fiber Density	12	24	48
	Duplex Port Density	6	12	24
559561	Fiber Density	24	48	96
	Duplex Port Density	12	24	48
1435128	Fiber Density	24	48/24	96/48
	Duplex Port Density	12	24/12	48/24
1278755	Fiber Density	36	72/–	144/–
	Duplex Port Density	18	36/–	72/–

Core Vertical Switch Management (VSM)

The Core Vertical Switch Management (VSM) platform is an application-driven solution for the unique cabling challenges presented by vertical blade-based core switch systems.

This modular system is designed to efficiently and effectively support deployment of cabling on the front of a Cisco 7010 series chassis.

FEATURES

Cabling routes directly from switch ports to patch panels above the switch – Frees up space at the sides of the mounting rails for other cabling, more effective air flow and hand access.

Logical representation of the switch ports and ease of access – The vertical patch management allows the cabling to be deployed neatly and in the same plane as the blade and port presentation. Patch fields in line with the switch ports simplify installation, MACs, documentation and troubleshooting.

Single patch cord lengths – Simplifies Day 2 activities and reduces inventory.

Simplified blade changeover – Blades and cabling can be preconfigured away from the switch, dramatically lowering changeover times and the corresponding outages, while greatly reducing patching errors.

Robust design – Provides the durability you expect with expanded hand access.

Designed to support UCP – Quick-Fit cassettes and modules allow a mix of copper and fiber in the same panel.

Supports mixed media applications and migration from fiber to copper in the same chassis.

Rack Mount Quick-Fit Panel

Rack Mount Quick-Fit Panel

Panel with UCP QuickFit modules

FEATURES

- Accepts up to 9 Quick-Fit modules
- Including cable support bars with tie down options
- Designed to support UCP Quick-Fit cassettes and modules allow a mix of copper and fiber in the same panel

Color: Black and galvanized finish

ORDERING INFORMATION

Description	Part Number
Rack Mount Quick-Fit Panel	0-1671907-1

Cable Management Tray

FEATURES

- Optimized to replace Cisco Nexus 7010 switch cable manager
- Provides vertical patch cord guiding
- Allows re-use of management front cover

Color: Black

ORDERING INFORMATION

Description	Part Number
Cable Management Tray for Cisco Nexus 7010	1671633-1

MRJ21 XG Quick-Fit Cassette 8 Port (10 Gb/s)

FEATURES

- Optimized for use in combination with UCP patch panels: plug-and-play deployment
- Compatible with MRJ21 XG cable assemblies for 10 GbE performance
- Front side: 8 x RJ45 jack (2 rows of 4 jacks)
- Rear side: 2 x MRJ21 receptacle
- Factory terminated and tested solution
- NOTE: The MRJ21 XG System for 10 Gb/s is not backwards compatible to the MRJ21 1 Gb/s solution!

ORDERING INFORMATION

Description	Part Number
MRJ21 XG Quick-Fit cassette for 10GBase-T	2153115-1

MRJ21 Quick-Fit Cassette 12 port (1 Gb/s)

FEATURES

- Pre-terminated Quick-Fit cassette
- High Performance TP Cabling for guaranteed application performance
- High-density, small form factor connectivity
- Modular solution

ORDERING INFORMATION

Description	Part Number
MRJ21 Quick-Fit cassette for 1000Base-T	1711970-1

CAT6A F/UTP Cable Assembly

FEATURES

- Meets or exceeds the channel specifications of ANSI/TIA-568-C.2 Category
- 6A shielded and Amendment 1 to ISO/IED 11801:2002 Class EA up to 500 MHz when used as a component in a properly installed TE F/UTP channel
- Meets or exceeds all requirements for IEEE 802.3an 10 GbE
- Clear, flexible, strain relief boot maintains proper bend radius to ensure peak performance
- Non-plenum (CM rated)
- 4-Pair stranded shielded conductors
- Universal wiring (T568A/T568B)
- RoHS compliant

ORDERING INFORMATION

Description	Part Number
CAT6A Shielded Cable Assemblies	TCPC-6ARFVB-WTYYF*

CAT5E U/UTP Cable Assembly

FEATURES

- Meets and exceeds ANSI/TIA performance requirements for CAT5E
- 4 pair stranded UTP cable
- Slim profile clear plug and boot
- Universal wiring

ORDERING INFORMATION

Description	Part Number
Patch cord RJ45 CAT5E UTP, White	TCPC-5ERUVA-WTYYF*

*YY- Denotes footage. More color options are available. Contact TE Customer Service.

MRJ21 XG to MRJ21 XG cable assemblies (10 Gb/s shielded)

FEATURES

- Friendly field installable 10 GbE solution
- Factory terminated and 100% tested solution
- Dense double blade connector with offset jackscrews for latching
- 16 pair shielded cable with AWG 26 solid conductors

Color: White

ORDERING INFORMATION

Description	Part Number (Y-0000000-X)
MRJ21 XG to MRJ21 XG, 10 Gb/s, 180°–180° back shell; CMR	2111521-X
MRJ21 XG to MRJ21 XG, 10 Gb/s, 180°–45° back shell; CMR	2111522-X

Y- -X	Length
0- -3	3 m
0- -5	5 m
1- -0	10 m
1- -5	15 m
2- -0	20 m
2- -5	25 m
3- -0	30 m
3- -5	35 m
4- -0	40 m

MRJ21 to MRJ21 cable assemblies (1 Gb/s)

MRJ21 180°
Back Shell

MRJ21 45°
Back Shell

FEATURES

- Field installable 1 GbE solution
- Enhanced screening and improved EMC
- Factory terminated and 100% tested solution
- Dense double blade connector with offset jackscrews for latching
- 1.5 to 4 times the port density of 2 x 6 Stacked Mod Jack (RJ-45)
- 24 pair unshielded cable with AWG 24 solid conductors

Color: Gray

ORDERING INFORMATION

Description	Part Number (Y-0000000-X)
MRJ21 to MRJ21, 1 Gb/s, 180°–180° back shell; straight to straight	2111366-X
MRJ21 to MRJ21, 1 Gb/s, 180°–45° back shell; straight to angled	2111371-X

Y- -X	Length
0- -5	5 m
1- -0	10 m
1- -5	15 m
2- -0	20 m
2- -5	25 m
3- -0	30 m
3- -5	35 m
4- -0	40 m
5- -0	50 m

Fiber

Fiber Enclosures – Core Vertical Switch Management (VSM)

MPOptimate to LC Quick-Fit cassettes

FEATURES

- Pre-terminated low loss cassettes
- Front: 6 duplex LC (12 fiber) or 6 Quad receptacles (24 fiber) LC
- Back: 1 or 2 low loss MPOptimate connector(s)
- Available in straight or flipped pair version
- Optical performance for OM3/OM4:
  IL ≤ 0.35 dB/cassette (max.)
  RL ≥ 27 dB
- Port number labeling and additional label strip included

ORDERING INFORMATION

Description	Pairs straight Part Number	Pairs flipped Part Number
1 x MPOptimate to 6 x LC Duplex (12 fiber); OM4 XGA 10 Gb/s	1671226-5	1-1671226-5
1 x MPOptimate to 6 x LC Duplex (12 fiber); OM3 XG 10 Gb/s	1671226-3	1-1671226-3
2 x MPOptimate to 6 x LC Quad (24 fiber); OM4 XGA 10 Gb/s	1671227-5	1-1671227-5
2 x MPOptimate to 6 x LC Quad (24 fiber); OM3 XG 10 Gb/s	1671227-3	1-1671227-3

MPOptimate coupler Quick-Fit module

FEATURES

- Quick-Fit module with 6 or 12 MPO couplers (supporting 72 to 288 fibers
- Port number labeling and additional label strip included
- Cable assemblies at rear of panel should be non-pinned

Color: Black

ORDERING INFORMATION

Description	Part Number
6 x MPO coupler module	1671200-1
12 x MPO coupler module	1711987-1

MPOptimate LC patch cords

FEATURES

- Patch cords with optimized LC connectors
- Cable performance: OM4 or OM3 XG 10 Gb/s

ORDERING INFORMATION

Description		Part Number
OM3 and OM4 (50/125 µm) multimode LC cable assemblies	OM3 2.0 mm zipcord LC-LC connectors	PAT-3C3C-P30CxxxM
	OM4 2.0 mm zipcord LC-LC connectors	PAT-3C3C-P40CxxxM
Singlemode LC cable assemblies	OS2 2.0 mm zipcord LC-LC connectors	PAT-LCLC-PS0CxxxM

Note: XXX=length in meters, three digits required (example: 40 meters is 040).

MPOptimate pre-terminated trunks

FEATURES

- Pulling socks and stealth pulling eye protect MPO connectors during installation

Color: Aqua

ORDERING INFORMATION

MPO Trunk Assemblies	Part Number
OM4 MPO Trunk Assemblies	
OM4 MPO-MPO, 12-fiber 3 mm interconnect, plenum (OFNP) rated	MPT-NCNCJ40xxxF-FF
OM4 MPO-MPO, 24-fiber backbone (2x12) with 3 mm interconnect subunits, OFNP/OFNP	MPT-NCNCD40xxxF-FF
OM3 MPO Trunk Assemblies	
OM3 MPO-MPO, 12-fiber 3 mm interconnect, plenum (OFNP) rated	MPT-NCNCJ30xxxF-FF
OM3 MPO-MPO, 24-fiber backbone (2 x 12) with 3 mm interconnect subunits, OFNR/OFNP	MPT-NCNCD30xxxF-FF
Singlemode Trunk Assemblies	
OS2 Singlemode, 12-fiber, 12-fiber 3 mm interconnect, plenum (OFNP) rated	MPA-NCNCJ50xxxF-FF
OS2 Singlemode, 24-fiber, 24 (2 x 12) Fiber backbone with 3 mm interconnect subunits, plenum (OFNP) rated	MPA-NCNCD50xxxF-FF

Note: XXX=length in feet, three digits required (example: 40 feet is 040).

MPOptimate patch cords

FEATURES

- Connector performance: IL ≤ 0.35 dB (max.); RL ≥ 28 dB
- Available in female/female and male/female version in straight and total flipped wiring
- Additional configurations are available, please see specification 402-1008 on www.te.com/Enterprise

Color: Aqua

ORDERING INFORMATION

Description	Part Number
12-Fiber MPO Patch Cord, Polarity A (Type A)	MPT-NCNCJ40xxxM-NN

Note: XXX=length in meters, three digits required (example: 40 meters is 040).

Fiber Enclosures – Optical Distribution Frame Solutions

TIA-942 presents the cross-connect architecture as the best practice for Main Distribution Area (MDA). Utilizing a centralized cross-connect frame allows maintenance to be performed without disrupting the cables attached to active equipment. All moves, adds and changes can be performed on the passive cross-connect frame. The benefits of deploying a cross-connect architecture in the MDA include: lower operating costs, enhanced reliability, and a reduced risk of downtime due to poor fiber jumper management.

Frames

TE developed its innovative Optical Distribution Frame (ODF) for high-fiber count applications. At 2304 terminations in a single frame, its unique, user-friendly design and superior cable management provide enterprise customers an optimum solution to handle applications with high fiber counts such as data centers.

TE's ODF product line is designed to fit a variety of termination, splice, and storage applications. This frame is designed with an emphasis on superior cable management and ease of use, including features such as ample trough space for cable and jumpers, easy access to connectors, and storage for jumpers. The frame sections are shipped from the factory fully equipped with all cable management hardware including a built-in jumper storage panel.

Fiber Termination Blocks (FTBs)

Fiber Termination Blocks (FTBs) are available with SC adapters in block configurations of 144-positions, and with LC adapters in 144- and 192-positions. FTBs utilize sliding adapter packs to gain easy access to both the front and rear connectors. FTBs can be ordered with adapters only, with factory terminated IFC stubs, or as plug-and-play cassettes.

Sliding Adapter Packs

Sliding adapter packs house groups of fiber optic adapters and are mounted in fiber termination blocks to provide easy access to connectors. Sliding adapter packs are available with SC and LC adapters. The adapters come in packs of four and six depending on the adapter type and the desired termination density.

FEATURES

Ample Trough Space

- Reduces jumper pile-up and congestion
  - Reduces maintenance time due to easy removal and tracing of jumpers
  - Minimizes risk of microbends or damage to fiber

Built-in Jumper Storage Panel

- Minimizes number of required jumper lengths
- Maintains fiber bend radius
- Simplifies frame installation
  - Saves money by reducing the number of different jumper lengths that have to be kept in inventory
  - Minimizes risk of microbends or damage to fiber
- Enclosed system ensures easy cable access without fiber cross-over points

Sliding Adapter Packs

- Promotes high density
- Provides easy access to connectors
  - Saves valuable floor space
  - Reduces time required for operations and maintenance

Intelligent Cable Routing System

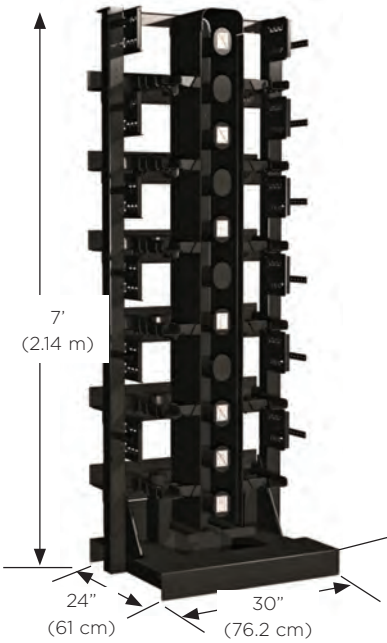
- No fiber cross-over points
- Multiple vertical troughways
  - Reduces maintenance time due to easier removal and tracing of jumpers and minimizes fiber “weaving”

Bend Radius Protection at Every Turn

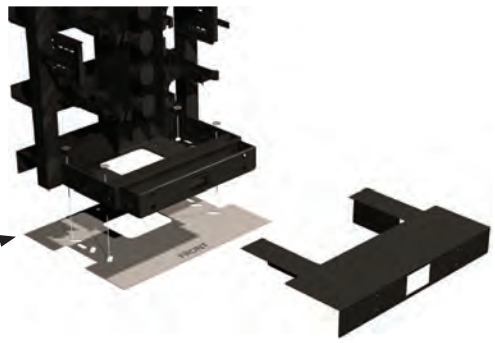
- ODF provides complete bend radius at every turn to ensure network performance and reliability

Fiber Main Distribution Frame (FMDF)

The FMDF is the cornerstone of the ODF product line. This innovative frame has six 5" horizontal troughs for a total of 30" of horizontal trough space. This abundant trough space minimizes fiber pile up and congestion leading to easier moves, adds and changes. The frame has twelve Fiber Termination Block (FTB) mounting positions equally divided between vertical columns on the left and right sides of the frame as shown in the figure here. The frame is available in 30" wide version and provides additional vertical trough space for the highest termination density applications. The built-in jumper storage panel will store up to 3.5 m (12') of jumper slack.



FMDF Frame
NGFB-MDF7A144-30



Isolation Pad shown with FMDF
NGF-ACCISOP30X24

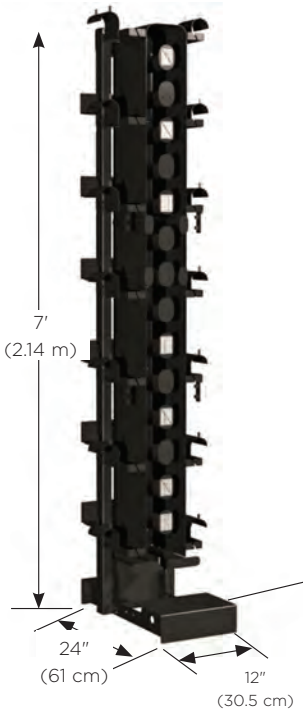
ORDERING INFORMATION

Description	Dimensions (HxWxD)	Part Number
Fiber Main Distribution Frame (FMDF) Accommodates 12 Fiber Termination Blocks (FTBs) or 12 Plug-and-Play Cassette Blocks	7' x 30" x 24" (2.14 m x 76.2 cm x 61 cm)	
Short Bracket 30" Frame For use with SC 144-position FTBs, or LC 192-position FTBs, LC 144- and 192-position Plug-and-Play Cassette Blocks[1]		NGFB-MDF7A144-30
Long Bracket 30" Frame For use with LC 144-position FTBs		NGFB-MDF7A100-30

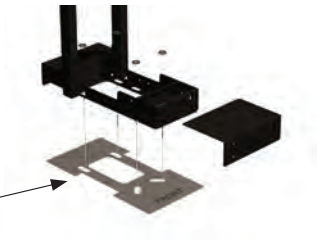
Each frame section includes heavy duty floor anchor bolts for concrete floor applications. Note: TE recommends the use of 1.7 mm/1.6 mm jumpers when deploying 192-position FTBs.

Fiber Optic Terminal Patch Cord Storage Panel

The fiber optic terminal patch cord storage panel is an optional filler panel that provides up to 5 m (16.4′) of slack storage for patch cords that run between terminal equipment and the rear ports of an ODF terminal block in cross-connect applications. This slack storage capability allows for greater flexibility in determining patch cord lengths and allows for use of more standard length patch cords. This panel is installed within the ODF frame lineup between ODF frames. The fiber optic terminal storage panels are available in two different configurations depending on the way the ODF frame system is zoned. ODF frames can be zoned by vertical or by frame. A 12″ wide panel is available that serves two verticals (one on each side) for use when frames are zoned by vertical. Also, 8″ wide versions are available that serve a single vertical (left or right) for use when frames are zoned by frame.



Fiber Optic Terminal Storage Panel
NGFB-ACCFOTSB



Isolation Pad shown with FOTSB
NGF-ACCISOPFS12X24

ORDERING INFORMATION

Description	Dimensions (HxWxD)	Part Number
Fiber Optic Terminal Patch Cord Storage Panel Use with FMDF frame Color: black	7′ x 12″ x 24″ (2.14 m x 30.5 cm x 61 cm)	NGFB-ACCFOTSB
Isolation Pad - Storage Panel A template for frame installation providing isolation between the frame and the ground		NGF-ACCISOPFS12X24

Note: When using the Fiber Optic Terminal Storage Panels, a cable exit UP block must be used.

End Guard

End guards provide protection for the fibers entering and exiting frames at the end of a lineup. They are designed for universal fit to be used on either end of the lineup.

ODF Frame
NGFB-MDF7A144-30

End Guard
NGFB-ACCEGD007

Isolation Pad shown with End Guard
NGF-ACCISOPEG24

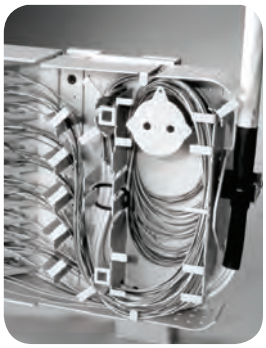
ORDERING INFORMATION

Description	Dimensions (HxWxD)	Part Number
End Guard Use with FMDF frames Color: black	7' x 5" x 24" (2.14 m x 12.7 cm x 61 cm)	NGFB-ACCEGD007
Isolation Pad - End Guard A template for frame installation providing isolation between the frame and the ground		NGF-ACCISOPEG24

Preterminated Fiber Termination Blocks
Arrive from the Factory with Either IFC or OSP Cables

Fiber Cable Easily Uncoils
During Installation

Fiber Termination Block
Ships Inside the Drum



IFC Cables
Loaded into FTB

Configuration Information

Fiber Termination Blocks (FTB) are available with factory terminated indoor rated cable (IFC) in ribbon or stranded configurations. All blocks are 100% factory tested to guarantee continuity and reliable connections. Factory terminated FTBs make installation quick and easy, reducing labor costs. Before ordering, determine the block orientation and cable exit direction. Factory terminated FTBs may be ordered with a “left” orientation (mounts on the left side of the frame) or a “right” orientation (mounts on the right side of the frame). The cable exit direction will be either “upward” (cables terminated to the rear side of the block exit up toward the top of the frame) or “downward” (cables terminated to the rear side of the block exit down toward the bottom of the frame).

Definition of Variables

1	**Block Style** General adapter type required in the FTB
2	**Block Configuration** Maximum number of terminations that the FTB will accommodate when fully loaded
3	**Block Orientation** Vertical column of the frame the FTB is to be mounted on
4	**Cable Exit Direction** Direction the equipment patch cords or IFC cable will exit from the FTB
5	**Adapter/Connector #1** Specific adapter/connector type required in the FTB. Refers to the adapter/connector type at the FTB
6	**Connector #2** Specific connector type required at the cable end opposite the FTB
7	**Cable Type** Type of cable to be terminated to the FTB
8	**Cable Length** Required length of the cable terminated to the FTB

FIBER

SC style FTB's with Factory Terminated Stubs 144-position Block

Part Number
NGFB-TB1M __ __ __ __ __ __ __ __ __

3 Block Orientation

L	Left
R	Right

4 Cable Exit Direction

U	Upward
D	Downward

5 Connector and Adapter Type #1

Singlemode	
7	SC ultra polish
Multimode	
9	SC
T	SC aqua (10 G)[1]

6 Connector Type #2

Singlemode	
0	No connector/stub end
7	SC ultra polish
Multimode	
0	No connector/stub end
9	SC

8 Cable Length

Standard Single-Ended	
016	16 m (50')
023	23 m (75')
031	31 m (100')
046	46 m (150')
061	61 m (200')
077	77 m (250')
092	92 m (300')
122	122 m (400')
153	153 m (500')
Non-Standard	
Use XXX for non-standard length in meters	

7 Cable Type (IFC Riser)[2]

Singlemode	
ZD	144-fiber stranded
FJ	144-fiber ribbon
62.5/125 µm Multimode Fiber	
YM	144-fiber stranded
50/125 µm Multimode Fiber	
VZ	144-fiber stranded
50/125 µm LOMMF 300 m Multimode Fiber	
WG	144-fiber stranded

[1] TE recommends the use of aqua colored adapters with laser optimized multimode fiber for identification of 10 Gigabit circuits.

[2] Panels using TE's standard cable offering have a shorter lead time than panels using a specific cable manufacturer. TE provides GR-409 compliant cable that meets or exceeds our high quality standards. Standard cable offering above will use Corning SMF28-e, Sumitomo, Alcatel or similar singlemode fiber based on current market availability. See previous page for definition of variables.
Other configurations are available upon request. Please contact TE Technical Assistance Center.

LC Style FTBs with Factory Terminated Stubs

Part Number
NGFB-TB4 __ __ __ __ __ __ __ __ __ __

2 Block Capacity

M	144
Q	192

3 Block Orientation

L	Left
R	Right

4 Cable Exit Direction

U	Upward
D	Downward

5 Connector and Adapter Type #1

Singlemode	
K	LC ultra polish
Multimode	
P	LC
C	LC aqua (10G)[1]

6 Connector Type #2

Singlemode	
0	No connector/stub end
K	LC ultra polish
Multimode	
0	No connector/stub end
P	LC

8 Cable Length

Standard Single-Ended	
016	16 m (50')
023	23 m (75')
031	31 m (100')
046	46 m (150')
061	61 m (200')
077	77 m (250')
092	92 m (300')
122	122 m (400')
153	153 m (500')
Non-Standard	
Use XXX for non-standard length in meters	

7 Cable Type (IFC Riser)[2]

Singlemode	
ZD	144-fiber stranded
GT	192-fiber stranded (2 x 96)
FJ	144-fiber ribbon
HK	192-fiber ribbon
62.5/125 µm Multimode Fiber	
YM	144-fiber stranded
MR	192-fiber stranded (2 x 96)
50/125 µm Multimode Fiber	
VZ	144-fiber stranded
JM	192-fiber stranded (2 x 96)
50/125 µm LOMMF 300 m Multimode Fiber	
WG	144-fiber stranded
TF	192-fiber stranded (2 x 96)

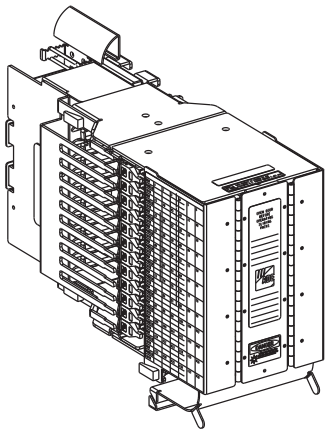
[1] TE recommends the use of aqua colored adapters with laser optimized multimode fiber for identification of 10 Gigabit circuits.

[2] Panels using TE's standard cable offering have a shorter lead time than panels using a specific cable manufacturer. TE provides GR-409 compliant cable that meets or exceeds our high quality standards. Standard cable offering above will use Corning SMF28-e, Sumitomo, Alcatel or similar singlemode fiber based on current market availability.
See previous page for definition of variables.
Other configurations are available upon request. Please contact TE Technical Assistance Center.

Fiber Termination Blocks (FTBs) – Unterminated (Adapter Only)

FTBs without fiber can be ordered fully loaded with adapters. Before ordering, determine the block orientation and cable exit direction. Unterminated FTBs may be ordered with a “left” orientation (mounts on the left side of the frame) or a “right” orientation (mounts on the right side of the frame). The cable exit direction will be either “upward”* (cables terminated to the rear side of the block exit up toward the top of the frame) or “downward” (cables terminated to the rear side of the block exit down toward the bottom of the frame). All blocks with adapters only are configured to terminate single or dual jumpers on the rear of the block. If a multifiber breakout style cable (i.e., OSP/IFC) is to be terminated to the rear of the block, a separate clamping kit and replacement rear storage area kit is required (see next page). FTBs cannot be ordered with a combination of singlemode and multimode adapters. If this combination is desired, TE recommends purchasing a fully loaded adapter only termination block, and separate sliding adapter packs to customize the block on-site.

*Note: When using the Fiber Optic Terminal Storage Panels, a cable exit UP block must be used.



144-Position Right Upward
FTB Shown

Fiber Termination Blocks (FTBs) – Unterminated (Adapter Only)

ORDERING INFORMATION

Description	Part Number
144-position Blocks	
Multimode LC	
LC (beige) adapters; cable exit up; RIGHT block orientation	NGFB-TB4MRUP
LC (beige) adapters; cable exit up; LEFT block orientation	NGFB-TB4MLUP
LC (beige) adapters; cable exit down; RIGHT block orientation	NGFB-TB4MRDP
LC (beige) adapters; cable exit down; LEFT block orientation	NGFB-TB4MLDP
Multimode SC	
SC (beige) adapters; cable exit up; RIGHT block orientation	NGFB-TB1MRU9
SC (beige) adapter; cable exit up; LEFT block orientation	NGFB-TB1MLU9
SC (beige) adapters; cable exit down; RIGHT block orientation	NGFB-TB1MRD9
SC (beige) adapters; cable exit down; LEFT block orientation	NGFB-TB1MLD9
10G Multimode LC[1]	
LC (aqua) adapters with zirconia sleeves; cable exit up; RIGHT block orientation	NGFB-TB4MRUC
LC (aqua) adapters with zirconia sleeves; cable exit up; LEFT block orientation	NGFB-TB4MLUC
LC (aqua) adapters with zirconia sleeves; cable exit down; RIGHT block orientation	NGFB-TB4MRDC
LC (aqua) adapters with zirconia sleeves; cable exit down; LEFT block orientation	NGFB-TB4MLDC
10G Multimode SC	
SC (aqua) adapters with zirconia sleeves; cable exit up; RIGHT block orientation	NGFB-TB1MRUT
SC (aqua) adapters with zirconia sleeves; cable exit up; LEFT block orientation	NGFB-TB1MLUT
SC (aqua) adapters with zirconia sleeves; cable exit down; RIGHT block orientation	NGFB-TB1MRDT
SC (aqua) adapters with zirconia sleeves; cable exit down; LEFT block orientation	NGFB-TB1MLDT
Singlemode LC	
LC (blue) adapters with zirconia sleeves; cable exit up; RIGHT block orientation	NGFB-TB4QRUK
LC (blue) adapters with zirconia sleeves; cable exit up; LEFT block orientation	NGFB-TB4QLUK
LC (blue) adapters with zirconia sleeves; cable exit down; RIGHT block orientation	NGFB-TB4QRDK
LC (blue) adapters with zirconia sleeves; cable exit down; LEFT block orientation	NGFB-TB4QLDK
Singlemode SC	
SC (blue) adapters with zirconia sleeves; cable exit up; RIGHT block orientation	NGFB-TB1MRU7
SC (blue) adapters with zirconia sleeves; cable exit up; LEFT block orientation	NGFB-TB1MLU7
SC (blue) adapters with zirconia sleeves; cable exit down; RIGHT block orientation	NGFB-TB1MRD7
SC (blue) adapters with zirconia sleeves; cable exit down; LEFT block orientation	NGFB-TB1MLD7

[1] TE recommends the use of aqua colored adapters with laser optimized multimode fiber for identification of 10 Gigabit circuits.

ORDERING INFORMATION, continued

Description	Part Number
192-position Blocks	
Multimode LC	
LC (beige) adapters; cable exit up; RIGHT block orientation	NGFB-TB4QRUP
LC (beige) adapters; cable exit up; LEFT block orientation	NGFB-TB4QLUP
LC (beige) adapters; cable exit down; RIGHT block orientation	NGFB-TB4QRDP
LC (beige) adapters; cable exit down; LEFT block orientation	NGFB-TB4QLDP
10G Multimode LC[1]	
LC (aqua) adapters with zirconia sleeves; cable exit up; RIGHT block orientation	NGFB-TB4QRUC
LC (aqua) adapters with zirconia sleeves; cable exit up; LEFT block orientation	NGFB-TB4QLUC
LC (aqua) adapters with zirconia sleeves; cable exit down; RIGHT block orientation	NGFB-TB4QRDC
LC (aqua) adapters with zirconia sleeves; cable exit down; LEFT block orientation	NGFB-TB4QLDC
Singlemode LC	
LC (blue) adapters with zirconia sleeves; cable exit up; RIGHT block orientation	NGFB-TB4QRUK
LC (blue) adapters with zirconia sleeves; cable exit up; LEFT block orientation	NGFB-TB4QLUK
LC (blue) adapters with zirconia sleeves; cable exit down; RIGHT block orientation	NGFB-TB4QRDK
LC (blue) adapters with zirconia sleeves; cable exit down; LEFT block orientation	NGFB-TB4QLDK

[1] TE recommends the use of aqua colored adapters with laser optimized multimode fiber for identification of 10 Gigabit circuits.

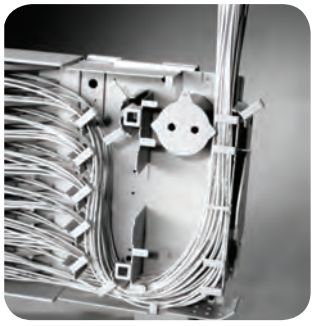
Fiber Termination Blocks (FTBs)

CONFIGURATION INFORMATION

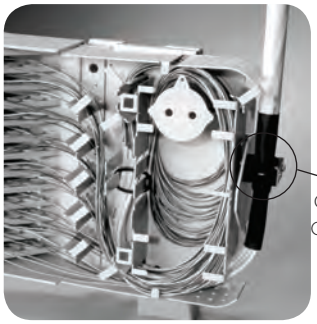
Definition of Variables	
1	**Block Style** General adapter type required in the FTB
2	**Block Configuration** Maximum number of terminations that the FTB will accommodate when fully loaded
3	**Block Orientation** Vertical column of the frame the FTB is to be mounted on
4	**Cable Exit** Direction Direction the equipment jumpers or OSP cable will exit from the FTB
5	**Adapter Type** Specific adapter type required in the FTB

Cable Clamping/Block Conversion Kits

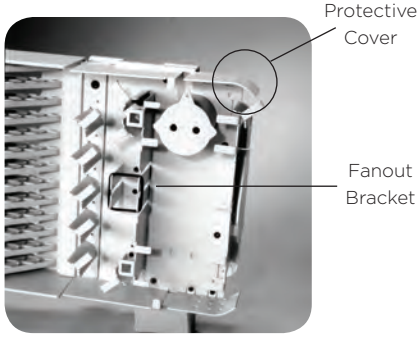
Adapter-only blocks are configured to accommodate single fiber jumpers or multifiber breakout cables. If loading a preterminated intrafacility (IFC) cable or a preterminated OSP cable is desired, additional hardware will be required. Block conversion kits are available to convert adapter only blocks to blocks that will accept preterminated IFC or OSP style cables. The conversion kits contain the cable management hardware, brackets and cable clamps required to convert the block. The kit required will depend on the block style originally purchased.



72-Position Block
Loaded with Jumpers



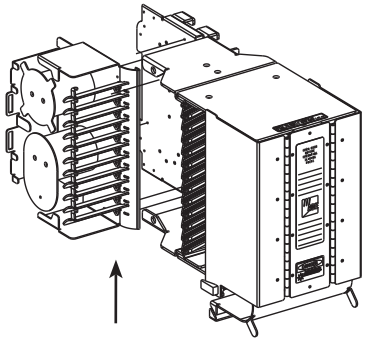
72-Position Block
Loaded with Multifiber Breakout Cable



72-Position Block
with Clamping Kit

ORDERING INFORMATION

Description	Part Number
Block style originally purchased	
144- or 192-position **left up** blocks	NGFB-ACCRCMSLU
144- or 192-position **right up** blocks	NGFB-ACCRCMSRU
144- or 192-position **left down** blocks	NGFB-ACCRCMSLD
144- or 192-position **right down** blocks	NGFB-ACCRCMSRD



Rear Cable Management Tray
for 144 Block Conversion Kit

Sliding Adapter Packs

Sliding adapter packs house groups of fiber optic adapters and are mounted in Fiber Termination Blocks to provide easy access to connectors. Sliding Adapter Packs are available with SC and LC adapters. The adapters come in packs of six and eight depending on the adapter type and the desired termination density. See table below for configuration guidelines.

SC pack
Style K

LC pack 144-position
Style K

ORDERING INFORMATION

Description	Part Number[1]
144-position Blocks	
Multimode LC	NGF-SAPP0K00
Multimode SC	NGF-SAP90K00
10G Multimode LC[1]	NGF-SAPC0K00
10G Multimode SC[1]	NGF-SAPT0K00
Singlemode LC	NGF-SAPK0K00
Singlemode SC	NGF-SAP70K00
192-position Blocks	
Multimode LC	NGF-SAPP0J00
10G Multimode LC[1]	NGF-SAPC0J00
Singlemode LC	NGF-SAPK0J0

[1] TE recommends the use of aqua colored adapters with laser optimized multimode fiber for 10 Gigabit circuit identification.

Note: TE recommends the use of 1.7 mm/1.6 mm jumpers when deploying 192-position FTBs.

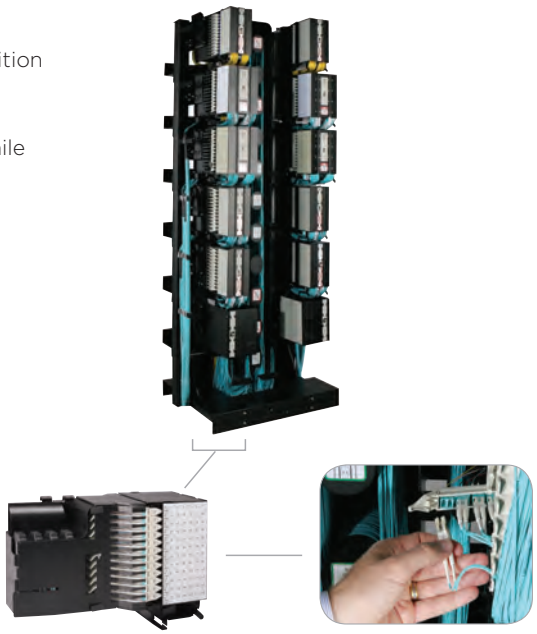
SLIDING ADAPTER PACK CONFIGURATION GUIDELINES SPECIFICATIONS

Block Configuration	Adapter Type	Adapter Pack Configuration	Adapter Pack Option
144-Position (block code 'M')	SC, LC	6 Pack/6 Pack	K
192-Position (block code 'Q')	LC	8 Pack/8 Pack	J

Data Center Optical Distribution Frame with Plug-and-Play Cassettes

TE's data center optical distribution frame (ODF) with plug-and-play (MPO) cassettes is the highest density optical distribution frame solution available today. It efficiently manages up to 1,728 fiber terminations using the 144-position block in a single frame in either a cross-connect or inter-connect design.

Its patented design incorporates the fundamentals of cable management while using the industry's highest fiber count MPO plug-and-play cassettes.



FEATURES

- Rapid installation of new deployments
- MPO trunks can enter rack from either under-floor or overhead
- Slack storage included in each rack allows for the use of a single jumper length
- On frame jumper routing provides bend radius and physical protection with slack easily and intuitively managed

APPLICATIONS

- Provides managed high-density solution for optical distribution frames in the main distribution area of the data center
- Can be successfully deployed in the cross-connect architecture recommended in TIA-942, and still provide clear, managed pathways for fiber

SPECIFICATIONS

MODULE LOSS (measured through MPO mated pair to LC adapter)	850 nm	1310 nm
INSERTION LOSS:		
Maximum:	0.7 dB	0.55 dB
Typical:	0.25 dB	0.25 dB
RETURN LOSS:		
Maximum:	—	-55 dB
TRUNK LOSS (PER METER):		
Maximum:	.0035 dB	.001 dB
CHANNEL/LINK LOSS: with 31 m trunk (100')		
Maximum:	1.3085 dB	1.131 dB
Typical:	0.6085 dB	0.531 dB

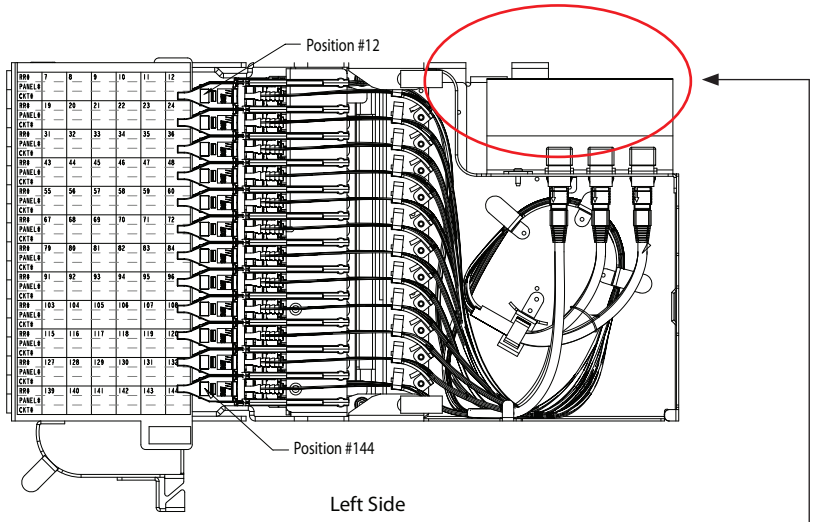
ENVIRONMENTAL CHARACTERISTICS

Storage Temperature:	-40° to 70° C (-40° to 158° F)
Operating Temperature:	0° to 70° C (32° to 158° F)
Installation Temperature:	0° to 70° C (32° to 158° F)

FIBER

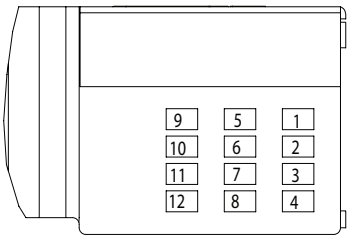
Data Center Optical Distribution Frame with Plug-and-Play Cassettes Specifications

SPECIFICATIONS

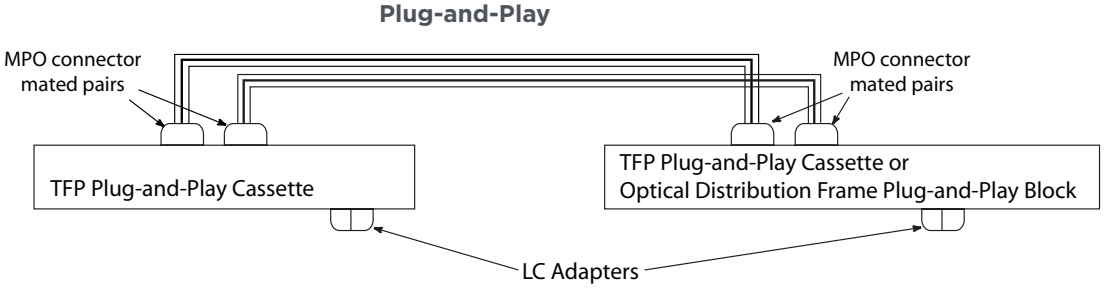


CONNECTION TABLE 144 POS												
MPO CONECTOR TRAY												FIBER COLOR
1-48				49-96				97-144				
FIBER BUNDLE NUMBER												
1	2	3	4	5	6	7	8	9	10	11	12	
T/B POSITION												
1	13	25	37	49	61	73	85	97	109	121	133	BLUE
2	14	26	38	50	62	74	86	98	110	122	134	ORANGE
3	15	27	39	51	63	75	87	99	111	123	135	GREEN
4	16	28	40	52	64	76	88	100	112	124	136	BROWN
5	17	29	41	53	65	77	89	101	113	125	137	SLATE
6	18	30	42	54	66	78	90	102	114	126	138	WHITE
7	19	31	43	55	67	79	91	103	115	127	139	RED
8	20	32	44	56	68	80	92	104	116	128	140	BLACK
9	21	33	45	57	69	81	93	105	117	129	141	YELLOW
10	22	34	46	58	70	82	94	106	118	130	142	VIOLET
11	23	35	47	59	71	83	95	107	119	131	143	ROSE
12	24	36	48	60	72	84	96	108	120	132	144	AQUA

Fiber Bundle/MPO Connector Locations



OPTICAL SPECIFICATIONS



Data Center Optical Distribution Frame with Plug-and-Play Cassettes

ORDERING INFORMATION

Description	Catalog Number
144-position MPO – LC Blocks; Black	
OM3 - 50/125 LOMMF 300m; 12 MPO to 144 LC (aqua) adapters	
LEFT block orientation	NGFB-MPML0C112
RIGHT block orientation	NGFB-MPMR0C112
OM4 - 50/125 LOMMF 550m; 12 MPO to 144 LC (aqua) adapters	
LEFT block orientation	NGFB-MPML0C412
RIGHT block orientation	NGFB-MPMR0C412
Singlemode – 12 MPO to 144 LC adapters	
LEFT block orientation	NGFB-MPML0K512
RIGHT block orientation	NGFB-MPMR0K512
192-position MPO – LC Blocks; Black	
OM3 - 50/125 LOMMF 300m; 16 MPO to 192 LC (aqua) adapters	
LEFT block orientation	NGFB-MPQL0C116
RIGHT block orientation	NGFB-MPQR0C116
OM4 - 50/125 LOMMF 550m; 16 MPO to 192 LC (aqua) adapters	
LEFT block orientation	NGFB-MPQL0C416
RIGHT block orientation	NGFB-MPQR0C416
Singlemode; 16 MPO to 192 LCUPC (blue) adapters	
LEFT block orientation	NGFB-MPQL0K516
RIGHT block orientation	NGFB-MPQR0K516
Rack	
30" x 24" x 7 ft frame with shorter MPO block mounting brackets; black	NGFB-MDF7A144-30
Rack Accessories	
ISO Pad	NGF-ACCISOP30X24
End Guard	NGFB-ACCEGD007
End Guard ISO Pad	NGF-ACCISOPEG24
Rack Installation Kit Raised Floor	FDF-ACC146

Cable Clamp Kit

Cable clamp kits are available for securing IFC/OSP cable or equipment jumpers on the rear of the FTB. Each FTB has three cable clamp mounting positions.

Cable clamp kit for active equipment patch cord includes:

- Cable clamp bracket 1 each
- O-ring 1 each
- Screws 2 each

Cable clamp kit for trunk cables includes:

- Clamp cover 1 each
- Clamps 2 each
- 0.5" Grommet (inner diameter) 1 each
- 0.6" Grommet (inner diameter) 1 each
- 0.7" Grommet (inner diameter) 1 each
- #14 - #6 AWG split bolt 1 each
- Shield bonding connector 1 each
- 1-foot lead wire 1 each
- #6 AWG ring terminal lug 1 each
- Clamp cover plate 1 each

ORDERING INFORMATION

Description	Part Number
Cable clamp kit for equipment patch cords (included with fiber termination blocks loaded with adapters only)	NGF-ACCCLMP04
Cable clamp kit* for trunk cables, dielectric cable without grounding hardware (included with fiber termination blocks with IFC)	NGF-ACCCLMP08

* One NGF-ACCCLMP08 is also included with each cable clamp kit and block conversion kit

Frame Installation Kit

Frame installation kits may be used on network frames and are seismic zone 4 rated.

Computer floor kit includes:

- Threaded rods — 4 each, 5/8" – 11" x 30"
- Heavy nuts, locks and flat washers — 12 each
- Nuts with springs — 4 each, 1/2" x 30" and shoulder washers
- Unistrut and anchor kit — 1 each, 10'

Overhead support kit includes:

- Designation card holder — 1 each
- Two-bar channel — 4 each
- Framing clip with 0.56 — 4 each
- Framing clip with 0.69 — 4 each
- Clip J-bolt — 4 each, 1/2" – 13" x 18" long
- Threaded rod — 2 each, 5/8" x 18" long
- Hex nut — 4 each, 1/2" x 13"
- Hex nut — 4 each, 5/8" x 11"

Standard Cross-Connect Patch Cord Lengths

SPECIFICATIONS

Total Number of Sections Traversed[1]	Approximate Patch Cord Length Meters (Feet)
Same frame	6 m (18')
Adjacent frames	7 m (23')
3 to 4	8 m (26')
5 to 6	10 m (33')
7 to 8	11 m (36')
9 to 10	12 m (39')

ORDERING INFORMATION

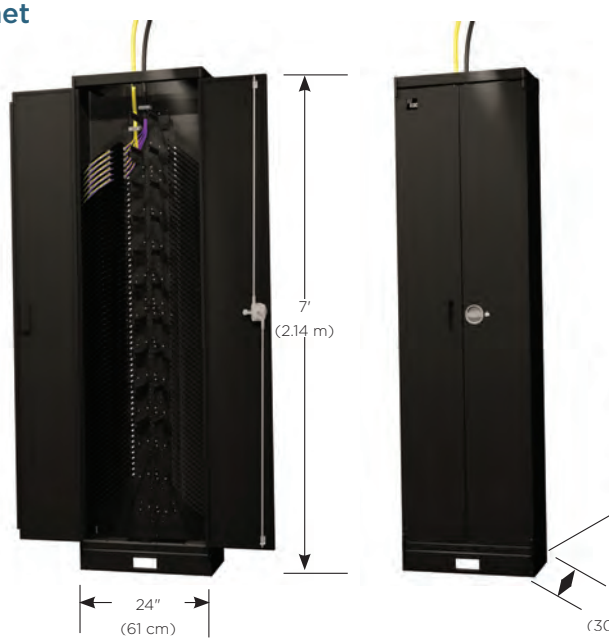
Description	Part Number
Frame installation kit for computer floor	FDF-ACC146
Overhead support	RINST-TOP7

[1] Depending on office requirements, 11 or more frame sections may require the use of interbay tie panels.

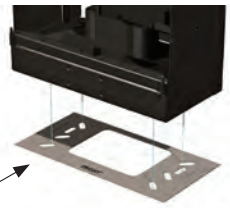
For additional information, please call TE Technical Assistance Center, 1-800-366-3891.
For recommended cross-connect method and installation instructions, refer to User Manual ADCP-90-285.

Fiber Enclosures – OMX Splice Cabinet

The data center splice cabinet is a high-density splice solution, housing up to 1,440 splices within a 23.6" by 11.8" footprint. Shipped complete with the necessary cable management, it features slots which secure and protect the round splice trays and can hold up to sixty 12-fiber splice trays on which the cables enter from above or below.



OMX Splice Cabinet Doors Open and Closed
MX6-BSPL-1440-U7



Isolation Pad shown with OMX Cabinet
MX6-BAYTEMPLATE

ORDERING INFORMATION

Description	Dimensions (HxWxD)	Part Number
Fully Configured Splice Cabinet Accommodates up to 1440 fiber splices Cable enters from top Color: black	7' x 24" x 12" (2.14 m x 61 cm x 30.5 cm)	
Cabinet - Cable Exit Up Cable enters from above Color: black		MX6-BSPL-1440-U7
Cabinet - Cable Exit Down Cable enters from below Color: black		MX6-BSPL-1440-D7
Isolation Pad - Splice Cabinet A template for cabinet installation providing isolation between the cabinet and the ground		MX6-BAYTEMPLATE

Splice Wheel

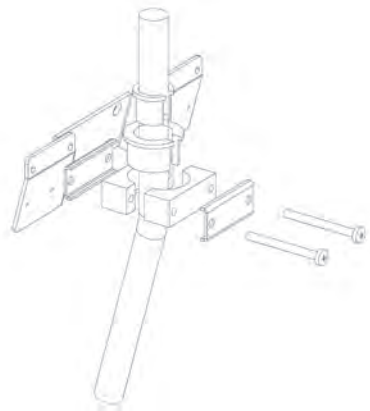
ORDERING INFORMATION

Description	Part Number
Splice Wheel	
Accommodates up to 24 fiber splices, heat shrink fusion chip	FST-DRS24-NT
Accommodates 12 ribbon fusion splices	FST-DRS12-MT

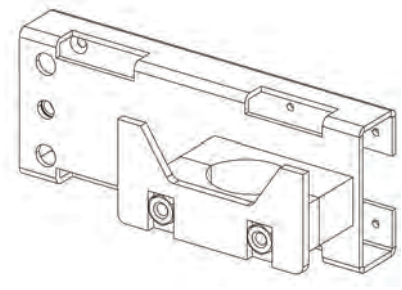
Cable Clamps

ORDERING INFORMATION

Description	Part Number
OMX Splice Frame Cable Clamps	
For OSP Cable	FEC-ACCCLMP01
For IFC Cable	MX6-SPLIFCCLMP

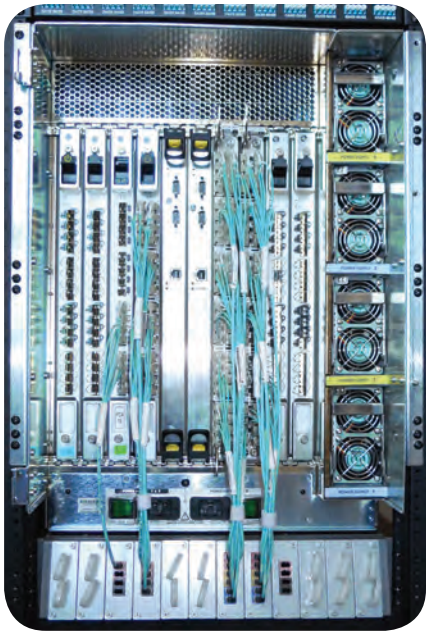


MX6-SPLIFCCLMP



FEC-ACCCLMP01

Storage Area Management (SAN Fiber Channel Management)



TE Connectivity's Storage Area Management (SAM) solution for network infrastructures is designed to reduce the bulkiness of cabling in the data center by up to 80% and enable high-density deployment with fewer costly cabinet or infrastructure upgrades. SAM can help you save time, reduce costs, maximize efficiency and open up much needed space in your data center. It takes the complexity out of cable management, and optimizes the performance of your data center floor space, racks and electronics.

FEATURES

- Reduce SAN switch cabling volume by up to 80%
- Implement high-density deployment with fewer cabinet or infrastructure upgrades
- Minimize footprint - no additional front vertical, side, or horizontal cable management devices
- Minimize cable mass and slack management using linecard-optimized hydra assemblies
- Speed up deployments and reduce connection errors with color-coded and keyed connections

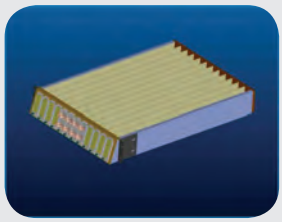
More information on TE's SAM solution can be found at **www.te.com/SAM**

ORDERING INFORMATION

Product Description	Part Number	
Rack Mount Patch Enclosure, 2RU MPO Secure	1553761-1	
SAM Far End Enclosure, 1RU MPO to Quad LC	**32-Port**	**48-Port**
XG OM3/OM4 (850 nm LO 50 µm) Multimode	1553533-2	1553533-1
Singlemode	1553657-2	1553657-1

Five Simple Components

SAM Rack Mount Optical Fiber Enclosure



SAM Rack Mount Optical Fiber Enclosure
(Pro-E image)

SAM MPO Hydra Cable Assemblies

SAM Far End Enclosure

SAM Hydra

Q3000 SAM Blade

Q3000 SAM Blades

Q3000 SAM Blade

FEATURES

- Replaces SAM Far End Enclosures
- Compatible with standard Q3000 frame
- Maintains port similarity with switches and SAM MPO linecard kits
- Each blade supports two SAM trunks
- 16 LC duplex ports (32 fibers) per 1/2 RU blade
- OM3/OM4 and OS2 versions
- Fully pre-assembled and pre-tested

ORDERING INFORMATION

Product Description	Fiber/ Port Count	Front/ Rear Connector	Part Number
Q3000 SAM Blades			
Q3000 SAM Blade OM3/OM4	32/16	Duplex LC/MPO	QUFB-32FDLCMM4HR
Q3000 SAM Blade Singlemode	32/16	Duplex LC/MPO	QUFB-32FDLCMSMHR

Product Description	Part Number
Q3000 Chassis Fiber Enclosure	
Q3200; 1RU (1.75" x 19" x 15"), accommodates 2 blades	QUCH-1RU
Q3400; 2RU (3.5" x 19" x 15"), accommodates 4 blades	QUCH-2RU

Product Description	Coupling Adapter/Interface	Part Number
SAM MPO Adapter Plates		2111481-1
Adapter Plate	Blank with Cable Management	
SAM System Miscellaneous Components		1553658-1
Cable Management Bracket Kit		

Adapter Plates

ORDERING INFORMATION CONTINUED

Product Description		Part Number		
		Plates	Hydras	Kits
SAM MPO Linecard Kits (Kit includes Plates and Hydras)				
16-Port Kit	OM3 (850 nm LO 50µm) Multimode 8GFC	2193050-1	1553608-1, 1553609-1	2193057-1
	Singlemode	2193050-1	1553635-1, 1553636-1	2193058-1
32-Port Kit	16 Gigabit SAM Kit	2111648-1	2111649-1, 2111649-2, 2111650-1, 2111650-2	2111651-1
	OM3 (850 nm LO 50µm) Multimode 8GFC	2193051-1	1553608-1, 1553608-2, 1553609-1, 1553609-2	2193057-2
	Singlemode	2193051-1	1553635-1, 1553635-2, 1553636-1, 1553636-2	2193058-2
48-Port Kit	OM3 (850 nm LO 50µm) Multimode 8GFC /16GFC	2193052-1	1553527-1, 1553527-2, 1553528-1, 1553528-2, 1553529-1, 1553529-2	2193057-3
	Singlemode	2193052-1	1553676-1, 1553676-2, 1553677-1, 1553677-2, 1553678-1, 1553678-2	2193058-3
64-Port Kit	OM3 (850 nm LO 50µm) Multimode 8GFC	2193016-1	2193045-1, 2193046-1, 2193046-2, 2193047-1, 2193047-2, 2193048-1, 2193048-2	2193057-4
	Singlemode	2193016-1	2193053-1, 2193053-2, 2193054-1, 2193054-2, 2193055-1, 2193055-2, 2193056-1, 2193056-2	2193058-4

SAM MPO Cable Assemblies

SAM Hydra

SAM MPO Cable Assemblies	End A	End B	Length	Part Number
OM3 (850 nm LO 50 µm) Multimode	MPO	MPO	3 m (10')	1553534-1
			6 m (20')	1553534-2
			9 m (30')	1553534-3
			12 m (40')	1553534-4
			15 m (50')	1553534-5
			18 m (60')	1553534-6
			21 m (70')	1553534-7
			24 m (80')	1553534-8
			27 m (90')	1553534-9
			30 m (100')	1-1553534-0
Singlemode	MPO	MPO	3 m (10')	1553640-1
			6 m (20')	1553640-2
			9 m (30')	1553640-3
			12 m (40')	1553640-4
			15 m (50')	1553640-5
			18 m (60')	1553640-6
			21 m (70')	1553640-7
			24 m (80')	1553640-8
			27 m (90')	1553640-9
			30 m (100')	1-1553640-0

Fiber

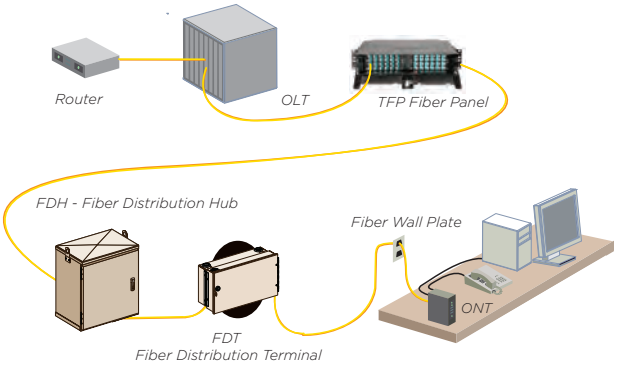
Optical LAN Solution Supporting PON Technologies

As optical fiber moves closer to end users, rapid changes are underway in both the data center and the equipment closet. As a result, new installation and maintenance techniques are being employed within enterprise applications. Passive Optical Network (PON) applications are now being deployed. Fiber is no longer limited to just access equipment. Fiber connectivity to a single user is a reality.

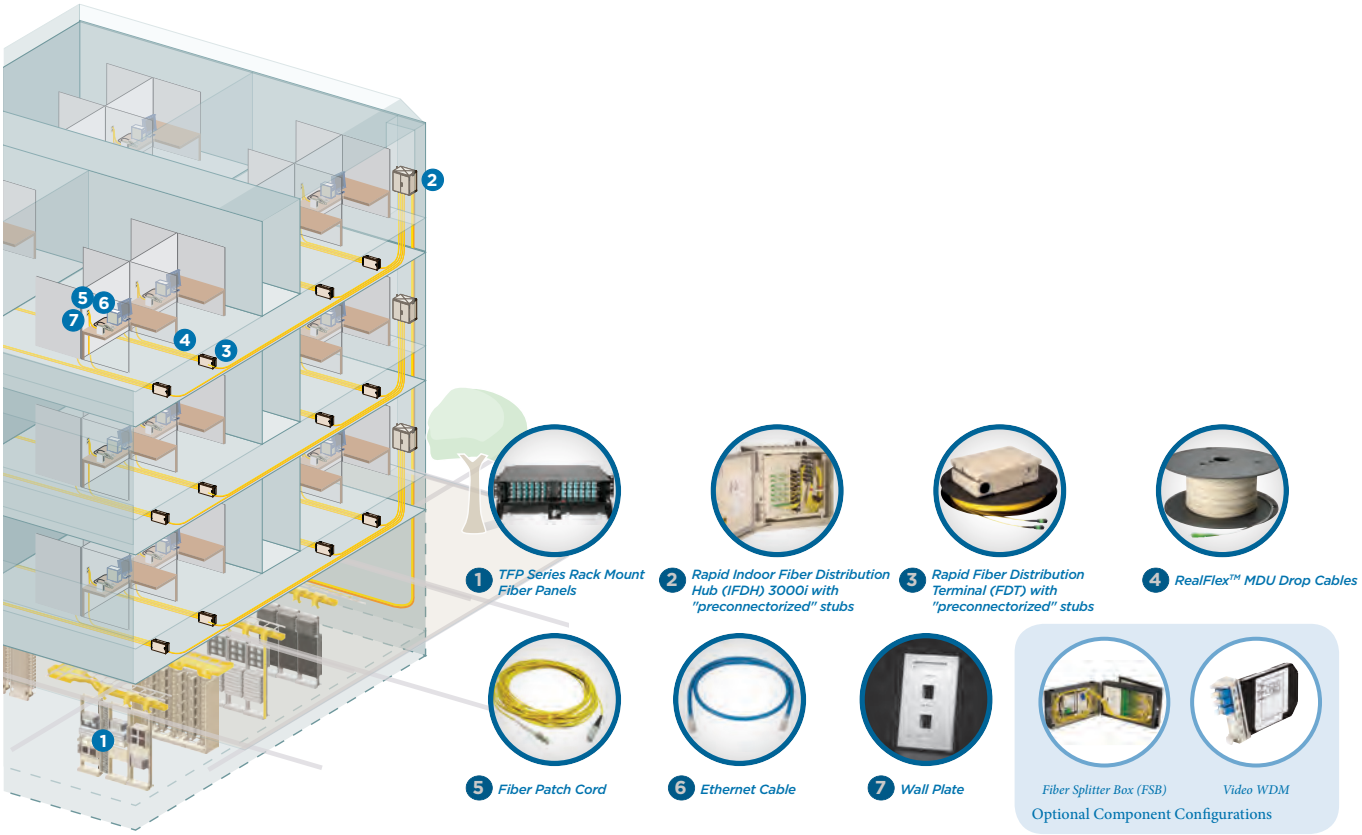
TE Connectivity offers complete, end-to-end PON infrastructure solutions called Optical LAN Solution (OLS). From the data center to the desktop, our customers have tapped the experience and innovation of TE to build their PON networks. TE's suite of end-to-end connectivity solutions is truly comprehensive. This ordering guide highlights the most commonly used components that feature field-proven attributes that can save time, money and help improve customer satisfaction.

The diagram below highlights a PON deployment using one of the TE OLS solutions. Each number corresponds to a specific innovative TE product which is described in more detail on the following pages.

For more information on TE's Optical LAN Solution, visit www.PONsource.com.



End-to-End Network Infrastructure


1 TFP Series Rack Mount Fiber Panels
2 Rapid Indoor Fiber Distribution Hub (IFDH) 3000i with "preconnectorized" stubs
3 Rapid Fiber Distribution Terminal (FDT) with "preconnectorized" stubs
4 RealFlex™ MDU Drop Cables
5 Fiber Patch Cord
6 Ethernet Cable
7 Wall Plate
Fiber Splitter Box (FSB)
Video WDM
Optional Component Configurations

Fiber

Optical LAN Solution Supporting PON Technologies

TFP Fiber Panels

TE's TrueNet Fiber Panels (TFP) combine the unique features of vertical cable guides, patented angle-left/angle-right adapters, and plug-and-play angled cassettes, which offer bend radius protection, intuitive routing, and easy connector access. The TFP series can be ordered in one, two, four, or five rack-unit sizes to fit your unique needs. Designed for rack mounting in the equipment distribution area, the TFP's modularity, functionality and density make it ideal for mounting in close proximity to the enterprise aggregation switch (OLT). The cassettes snap into place effortlessly and come from the factory pre-labeled with simple installation instructions.

The TFP panels are ideal for the interconnection points between the active OLT and the iFDH if it is co-located in the same building as the OLS deployment. The TFP cassettes are equipped with MPO adapters on the back allowing a simple plug-in from the feeder cable.

1RU TFP Panel

TFP Angled-Left Cassette

FEATURES

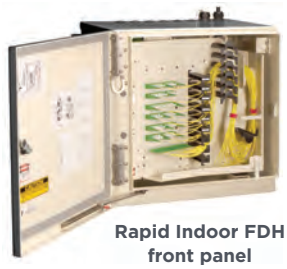
- Eliminates the need for on-site fiber terminations, which means more rapid deployments
- Incorporates angle left/angle right adapters to ensure proper bend radius
- Use the same 1, 2, 4 and 5 rack unit standard TFP chassis which simplifies ordering
- TFP cassettes equipped with MPO adapters on back allow simple plug-in from feeder cables

ORDERING INFORMATION

Description			Height	Part Number
Termination Only Rack- or Cabinet-Mount Panel; Black; T-handle latch close	1RU empty panel, Accommodates 2 plug-and-play cassettes		1.75"	TFP-1TT00-000B
	2RU empty panel, Accommodates 4 plug-and-play cassettes		3.50"	TFP-2TT00-000B
	4RU empty panel, Accommodates 8 plug-and-play cassettes		7.00"	TFP-4TT00-000B
	5RU empty panel, Accommodates 12 plug-and-play cassettes		8.75"	TFP-5TT00-000B
Plug-and-Play Cassettes **To maintain consistency with fiber distribution hubs and terminals order SC/APC cassettes for TFP panel.	12 fiber cassettes**; 12 SC/APC Singlemode Adapters	Angle LEFT cassette		TFP-12MPLSA1
		Angle RIGHT cassette		TFP-12MPRSA1
Recommended Accessories	3RU Horizontal Glide Cable Manager; with integrated slack storage spools			ADCCMHIBS-3U
Adapter plates	TFP Blank Plate			TFP-00AP00
	TFP SC/APC Adapter Plate Left			TFP-12APLA1
	TFP SC/APC Adapter Plate Right			TFP-12APRA1

Rapid Fiber Distribution Hub (iFDH)

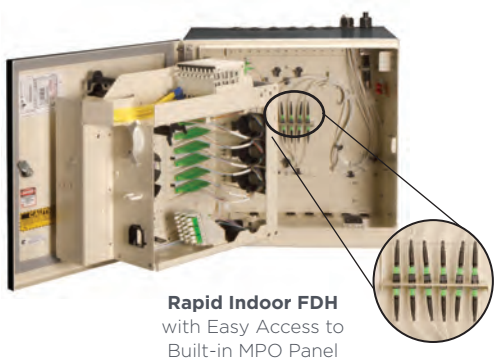
TE's Rapid Fiber Distribution Hub organizes and administers optical fiber cables and passive optical splitters for enterprise PON applications. The enclosures support plug-and-play termination with a cross-connect/interconnect interface that makes installation, maintenance, and changes faster and easier. The RapidReel feeder cable speeds up installation time and conveniently stores slack inside the iFDH.



Rapid Indoor FDH front panel

FEATURES

- Supports plug-and-play termination
- Can be either wall or rack mounted with the hardware provided
- Traditional swing-frame design allows superior rear access
- Includes RapidReel feeder cable
- Designed to meet NEMA-12 requirements
- UL 1863 Listed



Rapid Indoor FDH with Easy Access to Built-in MPO Panel

ORDERING INFORMATION

Description	Feeder Cable Type	Distribution Type	Feeder Stub Length	Part Number
72-Port with 9 splitter ports	12-fiber plenum	6 MPO adapters	100′	OLH-MK072J00M0MKCA
			250′	OLH-MK072J00M0MKEA
			500′	OLH-MK072J00M0MKBA
72-Port Empty Hub	No feeder cable**			OLH-MK072J00M0M000
288-Port with 18 splitter ports	24-fiber plenum	24 MPO adapters	100′	OLH-MM288J00M0MKCB
			250′	OLH-MM288J00M0MKEB
			500′	OLH-MM288J00M0MKBB
288-Port Empty Hub	No feeder cable**			OLH-MM288J00M0M000
432-Port with 22 splitter ports	24-fiber plenum	36 MPO adapters	100′	OLH-MN432J00M0MKCB
			250′	OLH-MN432J00M0MKEB
			500′	OLH-MN432J00M0MKBB
432-Port Empty Hub	No feeder cable**			OLH-MN432J00M0M000

*Note: Splitters are purchased separately; ordering information on the following page.
** See page 1-114 for MPO-MPO cable assemblies.

Fiber

Optical LAN Solution Supporting PON Technologies

Mini Plug-and-Play Splitter Modules

TE's Mini Plug-and-Play Splitter Modules support centralized splitting architectures. The modules are available in a wide range of split ratios. The rugged packaging is built for high performance, while the true plug-and-play design reduces installation time.

Plug and Play splitter

FMT Rack Mounted Splitter Panel

FEATURES

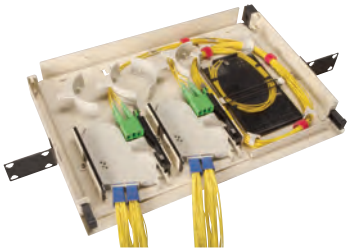
- Bend-optimized fiber and ruggedized extreme temperature cabling
- Operating temperature range -55° to +85° C
- Wavelength range of 1260-1635 nm
- Easy to insert and remove without affecting adjacent splitters
- UL 1863 Listed

SPECIFICATIONS:

Splitter Type	Max Loss	Typical Loss	Uniformity	Return Loss	Directivity	PDL	Wavelength Range
1x16	13.5 dB	12.8 dB	1.0 dB	55 dB	60 dB	0.3 dB	1260-1635 nm
1x32	16.7 dB	16.0 dB	1.3 dB	55 dB	60 dB	0.3 dB	1260-1635 nm

ORDERING INFORMATION

Description		Part Number
Optical Splitter Module Angled SC Pigtails, Used with iFDH, FSB, Splitter drawer, and Splitter Panels	1 x 32 splitter	OLS-MPP13266
	1 x 16 splitter	OLS-MPP11666
	1 x 8 splitter	OLS-MPP10866
	2 x 16 splitter	OLS-MPP1P66
	2 x 32 WDM Splitter	OLS-MPP1E66
	2 x 32 splitter	OLS-MPP12A66
1RU FMT Rack Mount Splitter with Splitter	1 x 32 splitter	OPS-FMTSP-AJJ01
	2 x 32 splitter	OPS-FMTSP-GJJ01
1 RU Rack Mount Splitter Drawer Accommodates up to 4 mini Plug-and-Play Splitters (purchased separately)		OPS-MPPACCRMPNL
Splitter Adapter Plate	1 x 32 Splitter	2111684-1
	1 x 16 Splitter	2111684-2



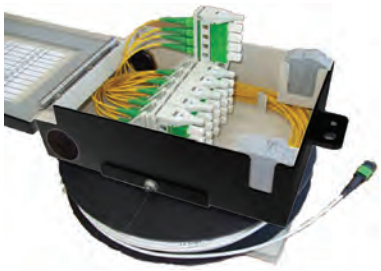
1RU Rack Mount Splitter Drawer

Splitter Adapter Plate
(LGX/LSX footprint)
See 316500AE for more details.

Rapid Fiber Distribution Terminal

TE's Rapid Fiber Distribution Terminal (FDT) provides a compact, NEMA-12 rated solution for connecting optical fiber cables within enterprise environments and serves as a distribution/consolidation point. It eliminates the need for splice cases and separate cable assemblies by integrating the RapidReel cable payout system. Use of factory terminated and tested MPO connectors instead of splicing provide a plug-and-play environment that reduces labor costs and speeds project completion. The Rapid FDT provides a lockable consolidation point and localized patch field, allowing for precise cable length customization in the field, while reducing overall cable volume and simplifying routing from the FDH to the user area. The iFDT's compact footprint enables it to be placed under raised floors, above ceilings, or wall mounted.

Rapid FDT



Rapid FDT
using slider adapter packs

FEATURES

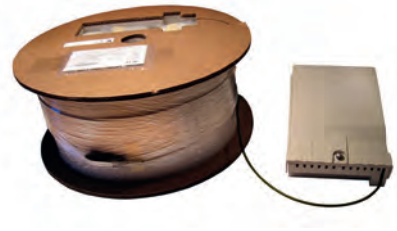
- Built-in RapidReel technology allows for easy payoff of MPO stub
- Patented break-away spool flanges reduce slack storage size to within the enclosures footprint
- Utilizes reduced bend radius fiber
- UL 1863 listed

ORDERING INFORMATION

Description	Stub	Feeder Stub Length	Part Number
12-fiber Loose tube plenum cable	MPO	100′	OLR-SJ12J00D1002A
		200′	OLR-SJ12J00D2002A
		300′	OLR-SJ12J00D3002A
24-fiber Loose tube plenum cable		100′	OLR-SJ24J00D1002A
		200′	OLR-SJ24J00D2002A
		300′	OLR-SJ24J00D3002A
		500′	OLR-SJ24J00D5002A
Mini-RDT 12-fiber : Lengths over 100 ft use external reel	MPO	100′	ODT-SM12J00D03090
		200′	ODT-SM12J00D0619A
		300′	ODT-SM12J00D0929A
		400′	ODT-SM12J00D1229A
		500′	ODT-SM12J00D1529A

*Note: Other cable lengths available. Contact your local TE sales engineer.

Mini RDT
12 Fiber



Mini RDT and Spool

Mini RDT Open and Pulling Rapid

Fiber Splitter Boxes

FSB-32 Indoor Enclosure

TE's Fiber Splitter Boxes (FSB) are mini Fiber Distribution Hubs that can be used for plug-and-play (PNP) or fusion splice applications.

When used as a plug-and-play box, they are ideal for uses such as lower count floors or buildings, extra capacity requirements beyond the standard Fiber Distribution Hub (FDH), and when localized splitting or physical path redundancy (using a 2x32 split) is desired.

The same box can also be used to extend services beyond the primary building to other smaller buildings with limited users on the campus. In this type of application, the FSB is typically spliced to the OSP fiber cable connecting the buildings and would offer the optical splitting required to provide PON services to the second building.

These wall boxes provide a small footprint for splitting, terminating, and splicing. FSBs accept standard plug-and-play splitters and can be easily added after the wall box has been installed. FSBs accommodate 1x8, 1x16, 1x32, 2x16 and 2x32 splitters. Wall mounting provides significant space savings and the unique swing frame design allows for easy access to the back section of the wall box.

FEATURES AND BENEFITS

- Dual hinge design creates separation between rear splitter section and front patching access
- Splitters can be easily installed after wall box installation allowing for separate purchase
- Provides up to 32 customer access ports per splitter
  - Dual hinge provides small footprint on the wall while maintaining excellent hand access to connectors
- Accepts standard mini-PNP splitter modules (same as iFDH)
- UL 1863 Listed

ORDERING INFORMATION

Description		Part Number
FSB-32 Indoor Enclosure; with SC/APC adapters, 32-fiber distribution	No splitters, no splice trays	OSB-SBJ032000000
	No splitters, with heat shrink splice trays	OSB-SBJ232000000
	(1) 1x32 splitter installed, no splice trays	OSB-SBJ032A10000
	(1) 1x32 splitter installed, with heat shrink splice trays	OSB-SBJ232A10000
	2 x 32 splitter installed, no splice trays	OSB-SBJ032G10000
	2 x 32 splitter installed, with heat shrink splice trays	OSB-SBJ232G10000
Optical Splitter Module - Angled SC Pigtails	1x32 splitter	OLS-MPP13266
	1x16 splitter	OLS-MPP11666
	1x8 splitter	OLS-MPP10866
	2x16 splitter	OLS-MPP1P66
	2x32 splitter	OLS-MPP12A66

Optical Fiber Cables

The TE reduced bend radius singlemode cable assemblies are used to connect the user area to the Rapid FDT or when connecting the ONT to the wall plate at the user end of the PON. With nearly 40 years of fiber cable manufacturing experience, TE offers a complete family of high performance cable and related products.

TE's singlemode reduced bend radius cable assemblies have a bend radius of 7.5 mm and are backwards compatible with standard singlemode fiber. TE offers ultra physical contact (UPC) or angled physical contact (APC) SC connector styles. TE maintains tight tolerances regarding the geometry and concentricity of the ferrule to maintain low insertion loss values. All cable assemblies undergo stringent testing for both insertion loss and return loss at the factory before shipment which ensures a high quality product is delivered.

SC Angled Polish

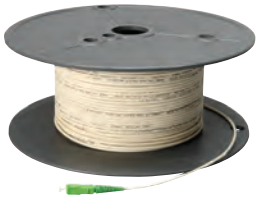
SC Ultra Polish

Simplex Drop Cables

ORDERING INFORMATION

Description	Length in Meters	Part Number
SCAPC-SCAPC Plenum Ivory	3 (10')	PAT-6C6C-PSIG003M
	8 (25')	PAT-6C6C-PSIG008M
	16 (50')	PAT-6C6C-PSIG016M
	23 (75')	PAT-6C6C-PSIG023M
	31 (100')	PAT-6C6C-PSIG031M
	38 (125')	PAT-6C6C-PSIG038M
	46 (150')	PAT-6C6C-PSIG046M
SCUPC-SCAPC Plenum Ivory	3 (10')	PAT-SC6C-PSIG003M
	8 (25')	PAT-SC6C-PSIG008M
	16 (50')	PAT-SC6C-PSIG016M
	23 (75')	PAT-SC6C-PSIG023M
	31 (100')	PAT-SC6C-PSIG031M
	38 (125')	PAT-SC6C-PSIG038M
	46 (150')	PAT-SC6C-PSIG046M

Additional configurations and lengths are available; contact TE for assistance.
Note: Reduced bend radius cable is used on all Drop Cables.



Stapled 3 mm Drop Cable

Jumper Assemblies

ORDERING INFORMATION

Description	Length in Meters	Part Number
SCAPC-SCAPC Plenum Yellow	3 (10′)	PAT-6C6C-PS0G003M
	8 (25′)	PAT-6C6C-PS0G008M
	16 (50′)	PAT-6C6C-PS0G016M
	23 (75′)	PAT-6C6C-PS0G023M
	31 (100′)	PAT-6C6C-PS0G031M
	38 (125′)	PAT-6C6C-PS0G038M
	46 (150′)	PAT-6C6C-PS0G046M
SCUPC-SCAPC Plenum Yellow	3 (10′)	PAT-SC6C-PS0G003M
	8 (25′)	PAT-SC6C-PS0G008M
	16 (50′)	PAT-SC6C-PS0G016M
	23 (75′)	PAT-SC6C-PS0G023M
	31 (100′)	PAT-SC6C-PS0G031M
	38 (125′)	PAT-SC6C-PS0G038M
	46 (150′)	PAT-SC6C-PS0G046M

Additional configurations and lengths are available; contact TE for assistance.

Singlemode Reduced Bend Radius Multifiber Cable Assemblies

ORDERING INFORMATION

Description		
12-Fiber 3 mm Singlemode Reduced Bend Radius Plenum Cable	**Length in Feet**	**Part Number**
MPO to SC/APC	50′	MPA-NC6CJ50050F-NF
	100′	MPA-NC6CJ50100F-NF
	200′	MPA-NC6CJ50200F-NF
	300′	MPA-NC6CJ50300F-NF
MPO to SC/UPC	50′	MPA-NCSCJ50050F-NF
	100′	MPA-NCSCJ50100F-NF
	200′	MPA-NCSCJ50200F-NF
	300′	MPA-NCSCJ50300F-NF
MPO to ST/UPC	50′	MPA-NCTCJ50050F-NF
	100′	MPA-NCTCJ50100F-NF
	200′	MPA-NCTCJ50200F-NF
	300′	MPA-NCTCJ50300F-NF

Additional configurations and lengths are available; contact TE for assistance.

MPO-MPO Cable Assemblies

ORDERING INFORMATION

Description		
12-Fiber 3 mm Singlemode Reduced Bend Radius Plenum Cable	**Length in Feet**	**Part Number**
12-Fiber MPO-MPO	100′	MPA-NCNCJ50100F-NN
	200′	MPA-NCNCJ50200F-NN
	300′	MPA-NCNCJ50300F-NN
	400′	MPA-NCNCJ50400F-NN
	500′	MPA-NCNCJ50500F-NN
	600′	MPA-NCNCJ50600F-NN
	750′	MPA-NCNCJ50750F-NN
	1000′	MPA-NCNCJ50305M-NN
24-Fiber Zip MPO-MPO	100′	MPA-NCNCZ50100F-NN
	200′	MPA-NCNCZ50200F-NN
	300′	MPA-NCNCZ50300F-NN
	400′	MPA-NCNCZ50400F-NN
	500′	MPA-NCNCZ50500F-NN
	600′	MPA-NCNCZ50600F-NN
	750′	MPA-NCNCZ50750F-NN
	1000′	MPA-NCNCZ50305M-NN

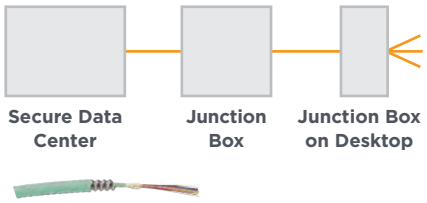
Additional configurations and lengths are available; contact TE for assistance.

Fiber

Optical LAN Solution Supporting PON Technologies

Armored Cable

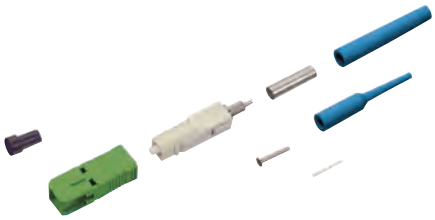
Our Secured Armored Optical LAN Solution allows high-security customers to have confidence that their optical network will be secure when deployed. The secured OLS platform uses TE's interlocking armored cable that provides a tamper-proof protection cable connecting to a secured junction box that can mounted on the ceiling or in a sub floor. The junction box allows up to four input cables with a maximum of 72 fibers. The drop side of the junction box will allow up to 72 armored fibers to be run to secured user facilities connecting to a user box that can be mounted either under or on top of the desktop. The ONT box offers access separation for authorized network personnel only and simple access from a locked door allowing approved user access with issued key.



Color coding of armored plant is available

ORDERING INFORMATION

Description		Part Number
Armored cable	6-fiber, SM Interlocking Aluminum Armor	4-1777121-7
	12-fiber, SM Interlocking Aluminum Armor	4-1777117-7
	24-fiber, SM Interlocking Aluminum Armor	7-1553420-3
	72-fiber, SM Interlocking Aluminum Armor	4-1777124-7
SC APC LightCrimp PLUS Connector*	900 µm buffered and 250 µm coated fibers	2064184-1
	900 µm buffered and 250 µm coated fibers, 3.0mm jacketed cable	2064184-2



SC APC LightCrimp PLUS

Colored, keyed, SECURE cable assemblies and other armored configurations are available. Contact your local TE Connectivity Sales Engineer.

* Tooling Kit, SC APC (1278118-4), reference page 1-131
  Handheld Optical Fiber Cleaver, SC APC (1871696-1), reference page 1-133

Patch Cords

TE's patch cord cables are available in Category 5E, 6, or augmented CAT 6 and in a variety of lengths and colors for interconnecting output of ONT to user's computer.

Category 5E Patch Cords

Category 5E Patch Cords

ORDERING INFORMATION

Description	Cable Color	Part Number
RJ45 plug to RJ45 plug, T568B Quantity: 1 Wired straight through RJ45 plug (T568B) — RJ45 plug (T568B)	White	TCPC-5ERUVB-WTxxF
	Red	TCPC-5ERUVB-RDxxF
	Blue	TCPC-5ERUVB-BLxxF
	Green	TCPC-5ERUVB-GNxxF
	Yellow	TCPC-5ERUVB-YLxxF
	Gray	TCPC-5ERUVB-GYxxF
RJ45 plug to RJ45 plug, T568A Quantity: 1 Wired straight through RJ45 plug (T568A) — RJ45 plug (T568A)	White	TCPC-5ERUVA-WTxxF
	Red	TCPC-5ERUVA-RDxxF
	Blue	TCPC-5ERUVA-BLxxF
	Green	TCPC-5ERUVAGNxxF
	Yellow	TCPC-5ERUVA-YLxxF
	Gray	TCPC-5ERUVA-GYxxF

*Replace xx with: 04 = 4′ 10 = 10′ 25 = 25′
07 = 7′ 15 = 15′ 50 = 50′

Contact TE for additional cable colors and lengths.

Category 6 Patch Cords

ORDERING INFORMATION

Description	Cable Color	Part Number
RJ45 plug to RJ45 plug, T568B Quantity: 1 **Wired straight through** RJ45 plug (T568B) — RJ45 plug (T568B)	Black	TCPC-6RUVB-BKxxF
	Blue	TCPC-6RUVB-BLxxF
	Green	TCPC-6RUVB-GNxxF
	Gray	TCPC-6RUVB-GYxxF
	Red	TCPC-6RUVB-RDxxF
	White	TCPC-6RUVB-WTxxF
	Yellow	TCPC-6RUVB-YLxxF
RJ45 plug to RJ45 plug, T568A Quantity: 1 **Wired straight through** RJ45 plug (T568A) — RJ45 plug (T568A)	Blue	TCPC-6RUVA-BLxxF
	Green	TCPC-6RUVA-GNxxF
	Gray	TCPC-6RUVA-GYxxF
	Red	TCPC-6RUVA-RDxxF
	White	TCPC-6RUVA-WTxxF
	Yellow	TCPC-6RUVA-YLxxF

*Replace xx with: 04 = 4′ 10 = 10′ 25 = 25′
07 = 7′ 15 = 15′ 50 = 50′

Contact TE for additional cable colors and lengths.

Category 6 Patch Cord

Fiber

Optical LAN Solution Supporting PON Technologies

Category 6A Patch Cords

ORDERING INFORMATION

RJ45 to RJ45 Patch Cord	Color	Part Number
568B wiring RJ45 plug (T568B) — RJ45 plug (T568B)	White	TCPC-6ARFVB-WTxxF
	Red	TCPC-6ARFVB-RDxxF
	Blue	TCPC-6ARFVB-BLxxF
	Yellow	TCPC-6ARFVB-YLxxF
	Green	TCPC-6ARFVB-GNxxF
	Gray	TCPC-6ARFVB-GYxxF
568A wiring RJ45 plug (T568A) — RJ45 plug (T568A)	White	TCPC-6ARFVA-WTxxF
	Red	TCPC-6ARFVA-RDxxF
	Blue	TCPC-6ARFVA-BLxxF
	Yellow	TCPC-6ARFVA-YLxxF
	Green	TCPC-6ARFVA-GNxxF
	Gray	TCPC-6ARFVA-GYxxF

Category 6A Patch Cord

*Replace xx with: 04 = 4′ 07 = 7′ 10 = 10′ 15 = 15′ 25 = 25′ 50 = 50′

Contact TE for additional cable colors and lengths.

Security Key Plug

Security Key Plug

FEATURES

- Works with standard RJ45 jacks
- Prevents unauthorized port connections
- Prevents disconnection from active devices
- Lock to RJ45 modular jacks
- Can be used in public areas or conference rooms
- 1871456-1 key/lock pairs are randomly selected from 100 different key numbers (numbered 800-899)
- 1871456-2, -3, and -4 use specific reserved key/lock pair number 456A
- RoHS compliant

ORDERING INFORMATION

Description	Included Keys	Part Number
Security Key Plug with	2 Keys, random number	1871456-1
	2 Keys, reserved number	1871456-2
Security Key Plug reserved number	None, for use with 1871456-4	1871456-3
Key for Reserved Number Security Key Plug	–	1871456-4

Security Key Patch Cord

CAT 6 Patch Cord

CAT 6A Patch Cord

FEATURES

- Works with standard RJ45 ports
- Prevents disconnection from active devices
- Prevents unauthorized disconnection
- Can be used for secure connections (e.g. server lines)
- Uses specific reserved key/lock pair number 456A (two keys included)
- RoHS compliant
- Category 6 patch cables are backward compatible with Category 5E components
- Security patch cord color:
  - CAT 6: black
  - CAT 6A F/UTP: blue

ORDERING INFORMATION

Category	Length	Locks on Both Ends	Locks on one End
CAT 6 Unshielded	1′ (0.30 m)	2111179-1	2111225-1
	2′ (0.61 m)	2111179-2	2111225-2
	3′ (0.91 m)	2111179-3	2111225-3
	4′ (1.22 m)	2111179-4	2111225-4
	5′ (1.52 m)	2111179-5	2111225-5
	6′ (1.83 m)	2111179-6	2111225-6
	7′ (2.13 m)	2111179-7	2111225-7
	8′ (2.44 m)	2111179-8	2111225-8
	9′ (2.74 m)	2111179-9	2111225-9
	10′ (3.05 m)	1-2111179-0	1-2111225-0
	12′ (3.66 m)	1-2111179-2	1-2111225-2
	14′ (4.27 m)	1-2111179-4	1-2111225-4
	16′ (4.88 m)	1-2111179-6	1-2111225-6
	18′ (5.49 m)	1-2111179-8	1-2111225-8
	20′ (6.10 m)	2-2111179-0	2-2111225-0
CAT 6A Shielded	1′ (0.30 m)	2111190-1	2111236-1
	2′ (0.61 m)	2111190-2	2111236-2
	3′ (0.91 m)	2111190-3	2111236-3
	4′ (1.22 m)	2111190-4	2111236-4
	5′ (1.52 m)	2111190-5	2111236-5
	6′ (1.83 m)	2111190-6	2111236-6
	7′ (2.13 m)	2111190-7	2111236-7
	8′ (2.44 m)	2111190-8	2111236-8
	9′ (2.74 m)	2111190-9	2111236-9
	10′ (3.05 m)	1-2111190-0	1-2111236-0
	12′ (3.66 m)	1-2111190-2	1-2111236-2
	14′ (4.27 m)	1-2111190-4	1-2111236-4
	16′ (4.88 m)	1-2111190-6	1-2111236-6
	18′ (5.49 m)	1-2111190-8	1-2111236-8
	20′ (6.10 m)	2-2111190-0	2-2111236-0

Angled Faceplates

FEATURES

- Accepts all AMP-TWIST jacks, SL series jacks, and SL series inserts
- Angled connector exits
- Protects connections
- Allows closer furniture placement

ORDERING INFORMATION

Description		Figure	Color	Part Number
Angled Faceplates				
2-port		A	Almond	1375155-1
4-port		B	Almond	406185-1
Inserts				
LC Duplex couplers	Singlemode APC	C	Green	1933286-3
	Singlemode	D	Blue	1933286-4
SC Simplex coupler; singlemode		E	Green	1499836-9
F-Connector coupler, 2 GHz		F	Almond	1499855-1
Blank		G	Almond	1116412-1

Other colors are available, contact TE for additional options.

Figure A

Figure B

Figure C

Figure D

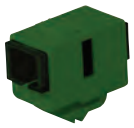


Figure E

Figure F

Figure G

SL Series Faceplates

FEATURES

- Single gang and double gang, single-sided faceplates accept three 1 unit or two 1.5 unit SL series modules
- Double gang, double-sided faceplates accept three 1 unit or two 1.5 unit SL series modules on each side
- Front-loading modules eliminate need to remove faceplates from wall for changes or repairs
- Double gang, double-sided SL series faceplates:
  - Dimensions (DxWxH): 0.675" x 4.490" x 4.540"
  - For use with openings a minimum of 2.81" x 3.59" (not suitable for mud rings/device covers)

Figure A

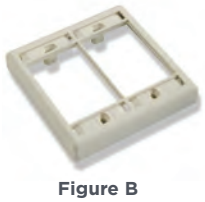


Figure B

ORDERING INFORMATION

Description	Width		Figure	Part Number
SL Series Faceplates Almond	Single Gang	Single-sided	A	1339118-1
	Double Gang	Double-sided	B	1479486-1

Other colors are available, contact TE for additional options.

HIDEAWAY Multimedia Outlets

FEATURES

- Accepts the following (see table for detailed load information):
  - Shielded and unshielded SL series jacks
  - AMP-TWIST jacks
  - SL series inserts
- Fits single and double gang electrical J-boxes
- Features “invisible” icon holes which remain hidden until used
- Features integral tabs for easy fiber loop management
- Breakaway tabs in duplex fiber coupler cut outs allow HIDEAWAY outlets to accept “flangless” SECURE LC duplex, standard LC duplex, or hybrid LC duplex couplers with retention clips (break out the tabs when using standard duplex couplers)

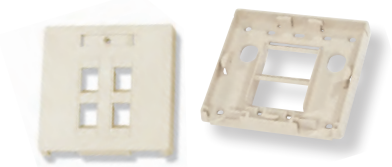


Figure A

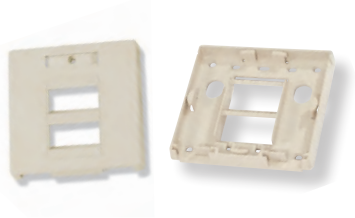


Figure B

ORDERING INFORMATION

Description	Figure	Part Number
4-Port	A	1479946-1
6-Port	B	1479815-1

HIDEOUT Outlets

Snap-on Cover

Screw-on Cover

FEATURES

- Double gang box with single gang cover recommended
- May not fit all single gang boxes
- Hides and protects cable connections
- Feeds from bottom to allow flush furniture placement
- Fits standard electrical boxes
- Each kit includes sub-plate, faceplate, adhesive labels, cable ties, and mounting screws. Media modules and icons must be ordered separately. Faceplates are plastic except for the stainless steel version
- Accepts the following (see table for detailed load information):
  - Shielded or unshielded SL series jacks
  - Unshielded 110Connect jacks
  - SL series inserts
- Shielded SL series jacks work in bottom row of faceplate only

ORDERING INFORMATION

Description	Included Faceplate	Part Number
HIDEOUT Outlet Kit Almond	Screw-on	503997-1
	Snap-on	503999-1

Note: Hideaway and Hide out Outlets can use SCAPC adapter pn 2-5502776-3

Desktop Monuments

FEATURES

- Power Monuments:
  - Provide access to duplex power outlet at the desktop
  - Eliminates the need to feed power cables behind or through desks
  - Supplied with an 8′ (2.4 m), 3-prong power cord for connection to existing electrical outlets
- Voice/Data Monuments:
  - Accepts standard FLEX-MODE faceplates
  - Horizontal cabling can be connected directly to SL series modular jacks (recommended for Category 5E applications)
- Attach to any desktop from 0.90″ - 1.78″ (22.9 mm - 45.2 mm)
- No special tools required to attach, simply place the monument onto the edge of the desktop and tighten the integrated thumb screw
- UL listed and CSA certified

Figure A

Figure B

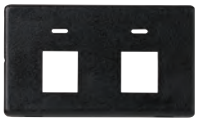


Figure C

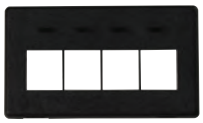


Figure D

ORDERING INFORMATION

Description	Figure	Color	Part Number
Power Monument; 15 Amp	A	Black	556222-3
Voice/Data Monument Empty Housing; requires FLEX-MODE faceplate	B	Black	1116360-3
Flex-Mode flush faceplate; 2-port	C	Black	558106-1
SL series; 4-port	D	Black	1933134-1

Consolidation Point Transition Cable Assemblies

FEATURES

- Ideal for shared ONT applications
- Form connections between remote/shared ONTs and the work area
- Compatible with all SL series faceplates
- Factory-assembled and tested
- Save time and money on moves, adds and changes
- Lead-free (no heavy metals)
- Gray cable jacket

Transition Cable Assembly

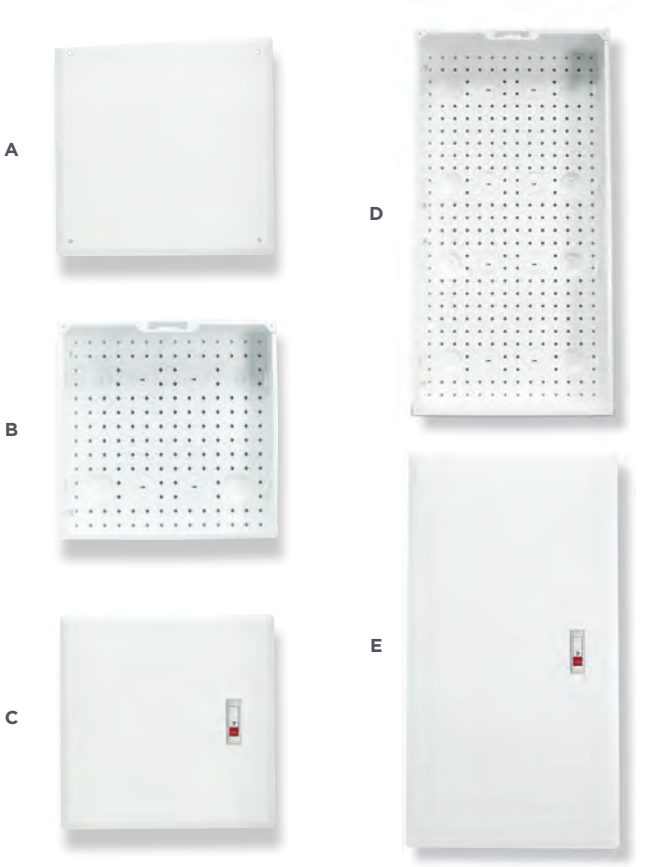
ORDERING INFORMATION

End A	End B	Length	Plenum (CMP) T568A	Plenum (CMP) T568B
Category 5E Modular Plug	SL Series Category 5E Modular Jack	20′	219174-1	219175-1
		30′	219174-2	219175-2
		40′	219174-3	219175-3
		50′	219174-4	219175-4
Category 6 Modular Plug	Un-terminated	50′	1499057-4	1499057-8
Category 6A Modular Plug			5-1499783-0	5-1933335-0

Media Convergence Center

FEATURES

- 20 AWG steel with white powder coat
- Multiple knockouts on all surfaces
- Versatile mounting grid for multiple connectivity panels and modules
- Two (2) knockouts for duplex electrical boxes
- 20 AWG steel with white powder coat
- Beveled edge for safety & aesthetics
- Screw on cover
- Lock for added security



RCS14
Media Convergence Center

RCS28
Media Convergence Center

ORDERING INFORMATION

Description	Dimension	Figure	Part Number
RCS14 Enclosure with screw-on Cover		A	1933691-1
RCS14 Enclosure without Cover	14.3 in H x 14.3 in W x 3.6 in D	B	1933837-1
RCS 14 Hinged Lockable Cover		C	1933694-1
RCS28 Enclosure with screw on Cover			1933692-1
RCS28 Enclosure without Cover	28.0 in H x 14.3 in W x 3.6 in D	D	1933838-1
RCS28 Hinged, Lockable Cover		E	1933695-1

Fiber Optic Accessories and Tooling

TE Connectivity's tool kits include all tools and consumables necessary for fiber termination

- Universal toolkits for installing all LightCrimp PLUS connectors
- Includes tools for installing MT-RJ and MT-RJ SECURE jacks
- Includes all tools necessary to install epoxy/polish connectors

LightCrimp PLUS LC/SC and LightCrimp Splice Termination Tool Kit

- Includes all tools need for installing LightCrimp PLUS LC, LC SECURE, SC, and LightCrimp Splice
- Convenient carrying case
- Tool kit includes:
  - Splice/Cable buffer holder
  - PRO-CRIMPER III hand tool
  - LC/SC/Splice die set
  - Fiber cleaver
  - 2.0 mm cable slitter
  - Buffer stripper
  - Cable jacket stripper
  - Strength member shears

Tool Kit Compatibility Chart

ORDERING INFORMATION

Tool Kit Name	MT-RJ Jacks	MT-RJ SECURE Jacks	LightCrimp PLUS			LightCrimp Splice	Epoxy/Polish			Tool Kit Part Number
			**LC	SC	ST		LC	SC	ST	
LightCrimp PLUS Termination Tool Kit	–	–	X	X	–	X	–	–	–	1553212-1
LightCrimp PLUS No-epoxy/No-polish Universal Tool Kit	X	X	X	X	X	–	–	–	–	1278118-4
LightCrimp PLUS No-epoxy/No-polish Universal Tool Kit	X	X	X	X	X	–	–	–	–	1278118-5
LightCrimp PLUS No-epoxy/No-polish LC and SC Tool Kit	–	–	X	X	–	–	–	–	–	1754845-1
LightCrimp PLUS No-epoxy/No-polish LC and SC Tool Kit	–	–	X	X	–	–	–	–	–	1754845-2
LightCrimp PLUS No-epoxy/No-polish ST Tool Kit	–	–	–	–	X	–	–	–	–	492697-1
LightCrimp PLUS No-epoxy/No-polish ST Tool Kit	–	–	–	–	X	–	–	–	–	492697-2
MT-RJ Jack Tool Kit	X	X	–	–	–	–	–	–	–	1278346-1
	X	X	–	–	–	–	–	–	–	1278346-2
Epoxy/Polish Tool Kits	–	–	–	–	–	–	X*	X	–	503746-7
	–	–	–	–	–	–	X*	–	X	503746-1

*Note: Termination of LC Epoxy/Polish Connectors requires additional tools listed in this chapter.
**Note: Termination includes LC SECURE Connectors
Termination instructions may be found at www.te.com/foguide

Epoxy/Polish Connector Consumables/Compatibility Chart

ORDERING INFORMATION

Epoxy/Polish Connector	Epoxies			Polishing Films					Consumables Package*
	EPO-TEK 504035-1	TRA-CON 1918652-1	HYSOL 502418-1	9 µm 1374484-1	5 µm 228433-8	Diamond Film 503887-1	0.3 µm 228433-5	Final Polishing Film 502748-2	
LC Singlemode	X	X	X	X	X	X	X	–	502306-4
LC Multimode	X	X	X	X	X	X	X	–	502306-4
SC Singlemode	X	X	X	–	X	–	X	X	502306-2
SC Multimode	X	X	X	–	X	–	X	X	502306-2
ST Singlemode	–	X	X	–	X	–	X	X	502306-2
ST Multimode	–	X	X	–	X	–	X	–	502306-1

*Note: Epoxy and film for ≈ 100 connectors.

LightCrimp PLUS Termination Tool Kits

FEATURES

- Universal kits Include all tools needed for installing all LightCrimp PLUS no-epoxy/no-polish connectors, MT-RJ, and MT-RJ SECURE jacks
- Convenient carrying case

ORDERING INFORMATION

Description	For Use With	Optional Components		Part Number
		Cleave Tool 1871696-1	Inspection Microscope 1754767-1	
Universal LightCrimp PLUS No-epoxy/No-polish Tool Kit	LC, MT-RJ, SC, ST	X	–	1278118-4
		X	X	1278118-5
LightCrimp PLUS Connector Termination Tool Kit	LC, SC	X	–	1754845-1
		X	X	1754845-2
	ST	X	–	492697-1
		X	X	492697-2

Termination instructions may be found at www.te.com/foguide

MT-RJ Jack Termination Tool Kit

Includes all tools needed for installing MT-RJ and MT-RJ SECURE jacks.

ORDERING INFORMATION

Description	Optional Components		Part Number
	Cleave Tool 1871696-1	Inspection Microscope 1754767-1	
MT-RJ Termination Tool Kit with cleave tool	X	–	1278346-1
	X	X	1278346-2

LightCrimp PLUS Cable Holders

Used in LightCrimp PLUS connector terminations (included in LightCrimp PLUS Tool Kits).

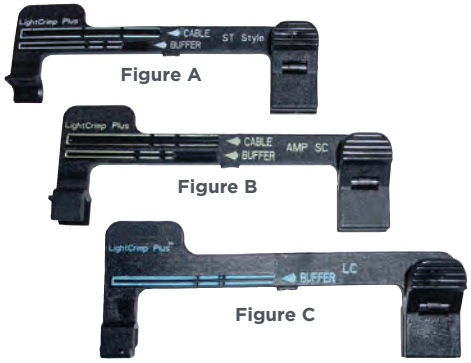


Figure A

Figure B

Figure C

Figure D

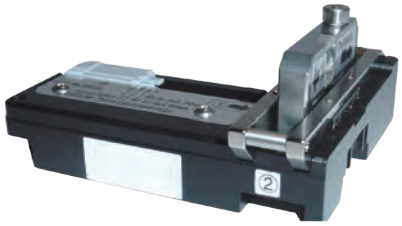
Figure E

ORDERING INFORMATION

Connector Type	Figure	Part Number
ST	A	492703-1
SC	B	1278023-1
LC	C	1754138-1
LC and SC	D	*2064540-1
LightCrimp Splice Holder	E	*1985771-1

* Used with die set 1985766-1
Termination instructions may be found at www.te.com/foguide

Hand Held Optical Fiber Cleaver



FEATURES

- Cleave fibers for LightCrimp PLUS connectors, MT-RJ, and MT-RJ SECURE jacks
- Operator independent
- Blade life-span more than 10,000 cleaves
- Cleave surface angle <1.5°
- No fracture, roll-off, or lip cleaves

ORDERING INFORMATION

Description	Part Number
Hand Held Optical Fiber Cleaver	1871696-1

Epoxy/Polish Connector Termination Tool Kits

FEATURES

- Includes all tools necessary to install the listed epoxy/polish connectors
- For LC terminations, also order LC termination accessories kit
- Tool kits include:
  - Pro-Crimper III Hand
  - Tool and crimping dies
  - Polishing bushings
  - Polishing film
  - Fiber strippers
  - Scribe tool
  - Includes polishing films to install 60 epoxy/polish connectors
  - Epoxy is sold separately
  - Does not include curing oven or microscope
  - Convenient carrying case

ORDERING INFORMATION

Description	For Use With	Part Number
LC Termination Accessories Kit (use with 503746)	LC	1754462-1
Epoxy/Polish Connector Termination Tool Kits	SC	503746-7
	ST	503746-1

Termination instructions may be found at www.te.com/foguide

EPO-TEK 353ND Epoxy

FEATURES

- For use with SC and LC Connectors
- Pre-measured two-part packets for consistent results
- Long pot life once mixed
- Heat-cured epoxy
- Supplied in 4-gram packets
- Cures in 15 minutes at 115° C
- Epoxy curing time starts after the oven has restabilized to the desired temperature after inserting the connectors into the curing block

ORDERING INFORMATION

Description	Part Number
EPO-TEK 353ND Epoxy	504035-1

TRA-CON Epoxy

FEATURES

- For use with SC, LC and ST Connectors
- Pre-measured two-part packets for consistent results
- Can be heat-cured or cured at ambient temperature
- Supplied in 2-gram packets
- Each packet terminates ≈ 250 connectors
- 25 packets per pack
- Pot life ≈ 30 minutes
- Cures in:
  - 24 hours @ 25° C
  - 2 hours @ 65° C
  - 10 minutes @ 110° C
- Epoxy curing time starts after the oven has restabilized to the desired temperature after inserting the connectors into the curing block

ORDERING INFORMATION

Description	Part Number
TRA-CON Epoxy	1918652-1

HYSOL Epoxy-Tubes

FEATURES

- For use with SC, LC and ST Connectors
- Two-part epoxy in two tubes
- Heat-cured epoxy
- Terminates ≈ 400 connectors
- One set of two (2) tubes per part number
- Pot life ≈ 30 minutes
- Cures in 30 minutes at 100° C
- Epoxy curing time starts after the oven has restabilized to the desired temperature after inserting the connectors into the curing block

ORDERING INFORMATION

Description	Part Number
HYSOL Epoxy-Tubes	502418-1

Epoxy Applicator Syringe

ORDERING INFORMATION

Description	Part Number
Epoxy Applicator Syringe	501473-3

Polishing Films and Consumables Kits

- Polishing films used to install LightCrimp and epoxy/polish connectors
- See listing of correct films by connector type
- Consumable kits include all consumables needed to install ≈ 100 of the listed epoxy/polish connectors

ORDERING INFORMATION

Description	For Use With	Package Quantity	Grit Grade	Part Number
Hand Polishing Film	Epoxy/Polish Connectors	100	15 µm	228433-9
		15	9 µm	1374484-1
		100	5 µm	228433-8
		100	1 µm	228433-7
		5	Diamond	503887-1
		100	0.3 µm	228433-5
Final Polishing Film	Epoxy/Polish Connectors	5	Final	502748-2
Consumables Kit	Multimode ST	–	–	502306-1
	SC, singlemode ST	–	–	502306-2
	LC	–	–	502306-4

Epoxy Curing Oven

FEATURES

- Reduces time required to cure epoxy
- Provides a uniform, controlled curing environment
- Used for all of TE's AMP NETCONNECT optical fiber epoxy/polish connectors
- Variable temperature control (60° C to 125° C)
- Includes thermometer - Epoxy curing time starts after the oven has restabilized to the desired temperature after inserting the connectors into the curing block
- Includes cable support bracket
- Two voltage options
- Comes equipped to cure up to four duplex connectors and twelve simplex connectors at once
  - Optional blocks reconfigure to eight duplex or twenty-four simplex connectors

ORDERING INFORMATION

Description		Part Number
Curing Oven	110 VAC	502134-1
	220 VAC	502134-2
Adapter Block for 8 Duplex Connectors		502222-1
Adapter Block for 24 Single Connectors		502129-1
LC Oven Block Assembly		1457628-1

Inspection Microscope

- Optimal visual examination of terminated ends
- 500 µm field of view
- Dual illumination
- Coaxial for inspecting polish quality
- Oblique for general conditions
- Pre-centered, threaded adapter mount provides easy focusing and changing of connectors
- Field and laboratory examination for multimode and singlemode fibers
- Portable
- Integral infrared filter for safety
  - Do NOT use any microscope to view active fiber signals
- Disposable, Type LR44 batteries
- Long-life LED (approximately 100,000 hours of operation)
- Each Kit includes:
  - 10-power objective microscope with an impact resistant ergonomic rubber shell and high quality glass optics
  - 20-power eyepiece
  - Padded carrying case with an integrated belt loop and internal adapter storage pocket
  - Neck lanyard with safety breakaway feature
  - Universal 2.5 mm ferrule adapter (for SC, ST and FC)

ORDERING INFORMATION

Description			Part Number
Inspection Microscope			1754767-1
Connector Adapters	1.25 mm Universal	(LC and MU)	1754765-1
	2.5 mm Universal	(SC, ST and FC)	1754766-1
	LC Duplex		2123273-1
	LC APC adapter		1553785-1
	MT-RJ		1754768-1
	SC APC		1828833-1
	MPX		1828834-1
	MPX APC		1828835-1
	MPO		1828836-1
	MPO APC		1828837-1
	FSMA	Connector Adapter	1985040-1
		Coupling adapter **(Required for FSMA adapter)**	1985041-1

DANGER: Active fibers should never be viewed through a microscope.

Polishing Bushings, Curing Sleeves, and Strip Card Kit

FEATURES

- Polishing bushings included in many tool kits
- Curing sleeves hold connectors in oven

Figure A

Figure B

Figure C

Figure D

ORDERING INFORMATION

Description	Cable Jacket Diameter (mm)	Used With	Notes	Figure	Part Number
LC Fiber Protectors, for Buffered Fiber	–	Epoxy/polish LC connectors			1457630-1
LC Fiber Protectors, for Jacketed Cable	–	Epoxy/polish LC connectors			1457630-2
Polish Bushing	3.0	Ceramic and stainless steel ST connectors	Metal		503337-1
		Ceramic, stainless steel and polymer composite ST connectors	Black Polymer	A	503304-1
		SC connectors	Black Polymer	B	502631-1
	–	LC connectors	Metal		1754074-1
Curing Sleeve	3.0	Ceramic, stainless steel and polymer composite ST connectors	12 pieces	C	502259-1
		SC connectors	1 piece	D	502656-1
Strip Template Kit	–	SC and ST connectors			501818-1

PRO-CRIMPER III Fiber Optic Hand Tool and Die Sets

FEATURES

- Crimp tool and die sets for LightCrimp, LightCrimp PLUS, and Epoxy/Polish style connectors
- Ergonomic tool design for comfort and easy actuation
- Die sets are interchangeable in the crimp tool
- Die set 1985766-1 can be used with the fiber protective end cap in place for LightCrimp PLUS LC and SC connectors

Figure A

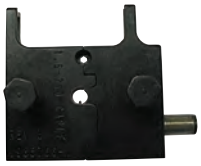


Figure B

ORDERING INFORMATION

Description		Figure	Part Number	
PRO-CRIMPER III Hand Tool (Die Sets Purchased Separately)		A	2064431-1	
For Use With	**Cable Jacket Diameter (mm)**		**Die Set Only**	**Hand Tool w/Die Set**
SC (Polymer Crimp Body)	3.0		503910-1	503911-1
	2.4 and 3.0		492025-1	492026-1
SC (Metal Crimp Body)	1.6 – 2.0, 2.4		1588175-1	1588176-1
	3.0		492131-1	–
LC	1.6 – 2.0, 2.4, 3.0		1588175-1	1588176-1
ST, Ceramic	3.0		58424-1	58433-4
ST, Stainless Steel	3.0		58424-1	58433-4
ST, Stainless Steel (504000-X Series Only)	3.0		58552-1	58551-1
ST Ceramic Used with Loose Tube	3.8		503890-1	–
LightCrimp PLUS LC	1.6 - 2.0		1754136-1	1754137-1
LightCrimp PLUS and LightCrimp SC	3.0		492783-1	492782-1
LightCrimp PLUS and LightCrimp ST	3.0		492622-1	492623-1
LightCrimp PLUS LC and SC, LightCrimp Splice	2.0	B	1985766-1	2064603-1

Termination instructions may be found at www.te.com/foguide

MTP/MPO IBC (In Bulkhead Cleaner)

FEATURES

- Dry cloth cleaner utilizes densely woven micro-fiber cloth
- Cleans male (with pins) or female MTP/MPO connectors in adapters, bulkheads, and faceplates
- Pre-washed cleaning cloth is lint and debris free
- Each cleaner is capable of more than 400 cleanings
- Protective dust cover doubles as an adapter cap for cleaning unmated connectors
- FOCIS 5-Type MTP/MPO interface compliant
- Removes dust and oil contamination

ORDERING INFORMATION

Description	Part Number
MTP/MPO IBC (In Bulkhead Cleaner)	1918809-1

OPTIPOP R Reel Optical Connector Cleaner

- Densely woven micro-fiber cloth cleans fiber optic connector tips while reducing static charge
- Variety of reel cleaner configurations allow for use on the major connector types including FC, SC, ST, LC, MT-RJ, and MPO

Figure A

Figure B

Figure C

Figure D

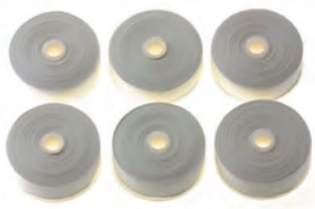


Figure E

ORDERING INFORMATION

Description	Figure	Part Number
MPO w/pins Reel Cleaner	A	1918802-1
One slot Reel Cleaner; 1.25mm, 2.5mm, MT no pins	B	1918803-1
MT-RJ plug w/pins Reel Cleaner	C	1918804-1
Two slot Reel Cleaner; 1.25mm and 2.5mm	D	1918805-1
Reel Cleaner refill (6 per pack)	E	1918806-1

OPTIPOP C Card Optical Connector Cleaner

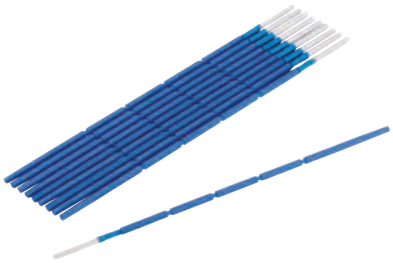
FEATURES

- Densely woven micro-fiber cloth cleans fiber optic connector tips while reducing static charge
- For use on the major connector types including FC, SC, ST, LC, MT-RJ, and MPO
- Captures debris and other contamination
- Cloth dimensions:
  120 mm x 57 mm (4.72" x 2.24")

ORDERING INFORMATION

Description	Part Number
Fiber Connector Card Cleaner	1918810-1
Card Cleaner Refill (10 per pack)	1918811-1

NEOCLEAN Stick Cleaner



FEATURES

- Dry cloth stick cleaners utilize a densely woven micro-fiber cloth to clean fiber optic connector tips while reducing static charge
- Perforated handle for customizing length and angle
- Overall stick length: 151 mm (5.94")
- 250 Sticks per package

ORDERING INFORMATION

Description	Part Number
Stick Cleaner - 2.5 mm Tip Diameter	1918807-1
Stick Cleaner - 1.25 mm Tip Diameter	1918808-1

LC and SC Connector Cleaner (In Bulkhead Cleaner)

Figure A

Figure B

FEATURES

- Dry cloth cleaners specially designed to clean single fiber connectors in adapters, bulkheads, and faceplates
- Dust cap of the cleaner acts as an adapter for cleaning unmated connectors
- Extended tip reaches recessed connectors
- Removes dust and oil contamination
- Disposable cleaner with 525+ cleanings per unit

ORDERING INFORMATION

Description	Figure	Part Number
LC Connector Cleaner (In Bulkhead Cleaner)	A	2064500-1
SC Connector Cleaner (In Bulkhead Cleaner)	B	2064499-1

Professional Fiber Connector Inspection/Cleaning Kits

FEATURES

- Perform inspection, cleaning, maintenance, and troubleshooting on optical connectors
- Kits include: carrying case, 200x inspection microscope, visual fault locator, various styles of connector cleaners, and detailed inspection and cleaning instructions

Figure A

ORDERING INFORMATION

For Use With	Figure	Part Number
LC, SC, ST, FC, MT-RJ, and MPO Style Connectors	A	2064651-1
LC, SC, ST, FC, and MT-RJ Style Connectors		2064651-2
LC, SC, ST, and FC Style Connectors		2064651-3

Velcro Cable Ties

For 8" and 12" ties, an order quantity of one equals one roll of ten ties.

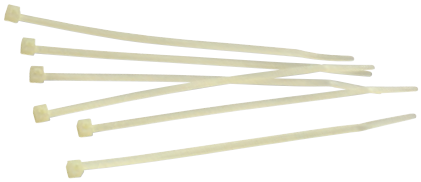
Figure A

Figure B

ORDERING INFORMATION

Description	Figure	Part Number	
		Black	Blue
1" x 8"	A	1375253-2	–
1" x 12"	B	1375254-2	–
5/8" x 5 yards	C	1375255-2	1375255-6
1" x 12" Flame Retardant*		1375256-2	–

* NOTE: Complies with NEC 300-22(c) and (d) for use in environmental air handling spaces. Available in black only.



AMP-TY Nylon Cable Ties

ORDERING INFORMATION

Dimensions (Approximate)			Minimum Tensile Strength	Maximum Bundle Diameter	Package Quantity	Color	
Length	Width	Thickness				Natural	Black
4" [103.0 mm]	0.096" [2.44 mm]	0.037" [0.94 mm]	18 lbs [80.1 N]	0.75" [19.10 mm]	1000	2-604771-9	2-604771-0
					100	1-604771-9	1-604771-0
6" [155.0 mm]	0.140" [3.56 mm]	0.045" [1.14 mm]	30 lbs [133.5 N]	1.25" [31.75 mm]	1000	2-603227-9	2-603227-0
					100	1-603227-9	1-603227-0
8" [204.0 mm]	0.184" [4.67 mm]	0.047" [1.19 mm]	50 lbs [222.5 N]	1.75" [44.45 mm]	1000	2-604772-9	2-604772-0
					100	1-604772-9	1-604772-0
12" [300.0 mm]	0.183" [4.65 mm]	0.051" [1.30 mm]	50 lbs [222.5 N]	3.00" [76.20 mm]	1000	2-604751-9	2-604751-0
					100	1-604751-9	1-604751-0

TE's TrueNet Copper and Fiber Labeling Software and Labeling Sheets

TE offers a complete labeling solution by SharpMark for the most popular copper and fiber solutions. TE labels are design to be used with a PC and standard laser printer. All label sheets are available through an TE authorized distribution partner. Contact TE Customer Service at 1-800-553-0938 for more details.

Free Labeling Software

The free labeling software can be downloaded from TE's website at www.te.com/TruenetLabeling in less than 5 minutes.

Label Sheets
designed for NGF Blocks

FEATURES

- Easy to download software can be used with Windows or Vista
- Label sheets are designed specifically for TE's most popular products

ORDERING INFORMATION

Description	UOM	Part Number
Adhesive label for TE's TrueNet patch cords or horizontal cable 1/2" x 1 1/2' Each label sheet contains 105 individual labels	SH	ADCLS-CL4A
Adhesive label for TE's TrueNet patch cords or horizontal cable 1" x 1 1/2' Each label sheet contains 49 individual labels	SH	ADCLS-CL10A
Adhesive label for TE's TrueNet patch cords or horizontal cable 1" x 2 1/4" Each label sheet contains 35 individual labels	SH	ADCLS-CL12A
Adhesive label for TE's TrueNet patch cords or horizontal cable 1" x 5 1/2" Each label sheet contains 14 individual labels	SH	ADCLS-CL24A
Adhesive label for TE's TrueNet 192 Fiber NGF Blocks Each label sheet contains 1 label sheet for left side of block	SH	ADCLS-NGF192LCAL
Adhesive label for TE's TrueNet 192 Fiber NGF Blocks Each label sheet contains 1 label sheet for right side of block	SH	ADCLS-NGF192LCAR
Adhesive label for TE's TrueNet 144 Fiber NGF Blocks Each label sheet contains 1 label sheet for left side of block	SH	ADCLS-NGF144SCAL
Adhesive label for TE's TrueNet 144 Fiber NGF Blocks Each label sheet contains 1 label sheet for right side of block	SH	ADCLS-NGF144LCAR
Adhesive label for TE's TrueNet 1RU TFP Fiber Panel Each label sheet contains 16 labels for the front and back of the hinged label	SH	ADCLS-TFP1RUA
Adhesive label for TE's TrueNet 2RU TFP Fiber Panel Each label sheet contains 6 labels for the front and back of the hinged label	SH	ADCLS-TFP2RUA
Adhesive label for TE's TrueNet 5RU TFP Fiber Panel Each label sheet contains 2 labels for the front and back of the hinged label	SH	ADCLS-TFP5RUA

OM3 and OM4 (50 µm) and OM2 (50/125 µm) Multimode LC Test Kits

FEATURES

- Test Kits include:
  - Cable assemblies
  - LC duplex clips
  - Mandrels
  - Carrying case
- Test kits for LC SECURE connector systems also available
- See "FIELD TESTING LC OPTICAL FIBER SYSTEMS" white paper (available on-line at www.te.com/EnterpriseNetworks) for test details

ORDERING INFORMATION

Description		Part Number
For use with Dual Fiber Testers with	SC Transmit and LC Receive Ports	1828867-1
	ST Transmit and LC Receive Ports	1828867-2
	LC Transmit and LC Receive Ports	1828867-3

OM3 and OM4 (50 µm) and OM2 (50/125 µm) Multimode Replacement Components for LC Test Kits

FEATURES

- Assemblies are 3 meters in length
- Assemblies are simplex style
- Cable assemblies are riser (OFNR) rated

ORDERING INFORMATION

Description	Part Number
Mandrels (Transmit side only)	1435119-1
LC Duplex Clips (pack of 6)	1754371-2
SC to LC Simplex Assembly, 3 m	1907490-3
ST to LC Simplex Assembly, 3 m	1907493-3
LC to LC Simplex Assembly, 3 m	1907496-3

62.5/125 µm OM1 Multimode LC Test Kits

FEATURES

- Test kits include:
  - Cable assemblies
  - LC duplex clips
  - Mandrels
  - Carrying case
- Test kits for LC SECURE connector systems also available
- See "FIELD TESTING LC OPTICAL FIBER SYSTEMS" white paper (available on-line at www.te.com/EnterpriseNetworks) for test details

ORDERING INFORMATION

Description		Part Number
For use with Dual Fiber Testers with	SC Transmit and LC Receive Ports	1828868-1
	ST Transmit and LC Receive Ports	1828868-2
	LC Transmit and LC Receive Ports	1828868-3

62.5/125 µm OM1 Multimode Replacement Components for LC Test Kits

FEATURES

- Assemblies are 3 meters in length
- Assemblies are simplex style
- Cable assemblies are riser (OFNR) rated

ORDERING INFORMATION

Description	Part Number
Mandrels (Transmit side only)	1435118-1
LC Duplex Clips (pack of 6)	1754371-2
SC to LC Simplex Assembly, 3 m	1907491-3
ST to LC Simplex Assembly, 3 m	1907494-3
LC to LC Simplex Assembly, 3 m	1907497-3

Singlemode LC Test Kits

FEATURES

- Test kits include:
  - Cable assemblies
  - LC duplex clips
  - Mandrels
  - Carrying case
- Test kits for LC SECURE connector systems also available
- See "FIELD TESTING LC OPTICAL FIBER SYSTEMS" white paper (available on-line at www.te.com/EnterpriseNetworks) for test details

ORDERING INFORMATION

Description		Part Number
For use with Dual Fiber Testers with	SC Transmit and LC Receive Ports	1828869-1
	ST Transmit and LC Receive Ports	1828869-2
	LC Transmit and LC Receive Ports	1828869-3

Replacement Components for Singlemode LC Test Kits

FEATURES

- Assemblies are 3 meters in length
- Assemblies are simplex style
- Cable assemblies are riser (OFNR) rated

ORDERING INFORMATION

Description	Part Number
LC Duplex Clips (pack of 6)	1754371-4
LC to SC Simplex Assembly, 3 m	1907489-3
LC to ST Simplex Assembly, 3 m	1907492-3
LC to LC Simplex Assembly, 3 m	1907495-3